PB87-141040

VOC (Volatile Organic Compound) Emission Factors for the NAPAP (National Acid Precipitation Assessment Program) Emission Inventory

Radian Corp., Research Triangle Park, NC

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

Dec 86

U.S. Department of Commerce
National Technical Information Service
NTIS

PB87-141040

EPA/600/7-86/052
December 1986

VOC EMISSION FACTORS FOR NAPAP EMISSION INVENTORY

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EPA Contract No. 68-02-3994
Work Assignment No. 32

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This project was conducted
in association with the
National Acid Precipitation Assessment Program

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REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA. 22161

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO. EPA/600/7-86/052	2.	3. RECIPIENT'S ACCESSION NO. PB87 141040/AS
4. TITLE AND SUBTITLE VOC Emission Factors for the NAPAP Emission Inventory		5. REPORT DATE December 1986
		6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) John H. Stelling, Margie A. Bloomhardt, and Iain M. McKenzie		8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Radian Corporation P.O. Box 13000 Research Triangle Park, North Carolina 27709		10. PROGRAM ELEMENT NO.
		11. CONTRACT/GRANT NO. 68-02-3994, Task 32
12. SPONSORING AGENCY NAME AND ADDRESS **EPA, Office of Research and Development** **Air and Energy Engineering Research Laboratory** **Research Triangle Park, NC 27711**		13. TYPE OF REPORT AND PERIOD COVERED Task Final; 8/85-8/86
		14. SPONSORING AGENCY CODE **EPA/600/13**

15. SUPPLEMENTARY NOTES AEERL project officer is J. David Mobley, Mail Drop 61, 919/541-2612.

16. ABSTRACT The report gives results of the generation of emission factors for volatile organic compound (VOC) emissions for a number of source classification categories (SCCs), as part of the National Acid Precipitation Assessment Program (NAPAP). Each SCC represents a process or function that is logically associated with a point source of air pollution within a given source category. The objective of this effort was to estimate VOC emission factors for categories where substantial amounts of VOC emissions would be expected. In addition to emission factors previously reported, the report includes emission factor estimates developed from a variety of readily available information. Data gathered during numerous standards-setting activities as well as data provided from state emissions inventory data bases were used to calculate the new emission factor estimates. Major emphasis of this effort was on organic chemical manufacturing processes and storage of petroleum products and organic chemicals.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS		b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Pollution	Storage	Pollution Control	13B 15E
Organic Compounds	Petroleum Products	Stationary Sources	07C
Volatility		Volatile Organic Compounds (VOCs)	20M
Emission		Emission Factors	14G
Chemical Industry			07A
Industrial Processes			13H

18. DISTRIBUTION STATEMENT **Release to Public**	19. SECURITY CLASS *(This Report)* **Unclassified**	21. NO. OF PAGES 172
	20. SECURITY CLASS *(This page)* **Unclassified**	22. PRICE

EPA Form 2220-1 (9-73)

NOTICE

This document has been reviewed in accordance with U.S. Environmental Protection Agency policy and approved for publication. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Acknowledgement

This report describes the development of emission factors for volatile organic compound (VOC) emissions for a number of source classification categories (SCC's). The project was administered by the U. S. Environmental Protection Agency (EPA) with funding from the National Acid Precipitation Assessment Program (NAPAP) Task Group on Emissions and Controls. David J. Beecy of the U. S. Department of Energy serves as chairman of this task group. The project has been a cooperative effort involving J. David Mobley of the EPA's Air and Energy Engineering Research Laboratory (AEERL) and Emerico L. Martinez, William H. Lamason, and Charles O. Mann of the EPA's Office of Air Quality Planning and Standards (OAQPS).

ABSTRACT

As part of the National Acid Precipitation Assessment Program (NAPAP), the U.S. Environmental Protection Agency (EPA) identified the need to generate emission factors for volatile organic compound (VOC) emissions for a number of source classification categories (SCC's). Each SCC represents a specific process or function that is logically associated with a point source of air pollution within a given source category. The objective of this effort was to estimate the VOC emission factors for those categories where substantial amounts of VOC emissions would be expected. In addition to emission factors previously reported, this report includes emission factor estimates developed from a variety of readily available information. Data gathered during numerous standards-setting activities as well as data provided from State emissions inventory data bases were used to calculate the new emission factor estimates. The major emphasis of this effort was on organic chemical manufacturing processes and storage of petroleum products and organic chemicals.

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EXECUTIVE SUMMARY

As part of the National Acid Precipitation Assessment Program (NAPAP), the Air and Energy Engineering Research Laboratory (AEERL) of the U.S. Environmental Protection Agency (EPA) updated the October 1985 NEDS Source Classification Codes and Emission Factor Listing that was prepared by EPA's Office of Air Quality Planning and Standards (OAQPS). Volatile organic compound (VOC) emission factor estimates were generated for those source classification categories (SCC's) where substantial amounts of VOC emissions would be expected. The major emphasis of this effort was on organic chemical manufacturing processes and storage of petroleum products and organic chemicals. A review of OAQPS's 1985 NEDS document showed that VOC emission factors were needed for approximately 1,830 SCC's; twenty-five percent of these SCC's were found in the organic chemical manufacturing category alone. As a result of the current effort, VOC emission factor estimates were developed for 40 percent of the SCC's for which VOC emission factors were previously unavailable.

The SCC's and emission factors that are reported in OAQPS's 1985 NEDS report resulted from updating all emission factor changes through AP-42, Fourth Edition. The 1985 NEDS report also contains a number of new SCC's and changes to existing SCC's that have been previously listed.

In the current work by AEERL, the primary objective was to provide VOC emission factors for those SCC's that had no current listing of VOC emission factors. The major effort was on those SCC's with information that was readily available and that would represent a significant quantity of VOC emissions to the atmosphere. The new emission factors resulting from this current work are not of the same quality as emission factors tabulated in AP-42. They were generated from sparse data on units in the synthetic organic chemical manufacturing industry (SOCMI) and from emission factor estimates provided by individual air quality districts within States. In terms of the

AP-42 ratings, the estimates provided from this effort would be considered of "E" quality.

A survey of the SCC and emission factor listing given in OAQPS's 1985 NEDS document found that little data were presented for organic chemical manufacturing and storage of petroleum products and organic chemicals. These SCC's, therefore, were targeted as the highest priority in evaluating new emission factors. Lower priority was assigned to those categories where little or no VOC emissions were expected, such as inorganic chemical manufacturing and smelting/metal producing operations.

Organic Chemical Manufacturing

Approximately 80 organic chemicals are given in the SCC listing. For each of these chemicals, individual unit operations are identified by individual SCC's as having the potential to emit VOC directly to the atmosphere. Approximately 75 percent of these organic chemical manufacturing processes required emission factor estimates. Table 1 presents those organic chemicals and the number of SCC's associated with each chemical that did not have a VOC emission factor in the SCC listing. Also presented is the number of SCC's where estimates have been made for VOC emission factors.

The new emission factors provided herein were generated from data gathered during numerous standards-setting activities and from data provided from State emissions inventory data bases. Dockets for new source performance standards (NSPS) for fugitive emissions, air oxidation processes, distillation operations, and reactor processes within SOCMI were valuable sources of VOC emissions data. These dockets contain background information, reference material and industry responses to Clean Air Act Section 114 letters pertaining to the development of the NSPS's. Sufficient industry information was available to calculate VOC emission factor estimates for approximately 30 percent of the organic chemicals lacking emission factors in OAQPS's 1985 NEDS document.

Two industry-wide studies conducted in the 1970's were reviewed to gather additional VOC emissions data where information was not available from the standards development files. Approximately 50 percent of the organic chemicals previously without emission factors were incorporated using information from these studies.

A number of source specific documents were used to gather information for VOC emission factors. These documents include Background Information Documents (BID's), Source Assessments, and chemical-specific emission source survey documents. Appendix A of the report lists detailed information on the various documents that were reviewed, including complete titles and EPA publication numbers.

Finally, six States (California, Texas, Louisiana, Illinois, New Jersey and West Virginia) were contacted to gather information on VOC emissions. Since a large portion of the organic chemical manufacturing industry is located in these States, they potentially have the highest rate of process-related VOC emissions. Most States contacted did not have emissions data in a readily available form (either not in computer files, in confidential files, or unverified). However, some current emission factor data were made available for inclusion in this report.

Storage of Volatile Organic Liquids

Storage of petroleum products and organic chemicals was the second area of special interest for developing emission factor estimates. Table 2 presents the number of SCC's for storage of petroleum products and organic chemicals that did not previously have VOC emission factors in OAQPS's 1985 NEDS listing. Also presented is the number of SCC's for which emission factor estimates have been completed for these classifications.

Equations for estimating VOC losses from storage tanks have been recently revised by the American Petroleum Institute (API). These revised equations are included in the latest edition of Section 4-3 of AP-42 (September 1985). Tank dimensional data for model tanks and assumptions on average atmospheric conditions were repeated from AP-42, Third Edition. Physical properties of organic compounds were extracted from published chemical abstracts. Using the revised equations, breathing loss and working loss emission factor estimates were calculated for both fixed roof tanks and floating roof tanks for 89 chemicals. Emissions data from State emission inventory files were also used to complete emission factor estimates for storage losses. New VOC emission factor estimates have been added for approximately 60 percent of the SCC's concerning storage of petroleum products and organic chemicals.

Recommendations

Recommendations for further study to develop new VOC emission factors and refine existing emission factors are included in this report. Proposed activities for further study include visiting States where emissions inventory data are available, and conducting a more in-depth literature search for quantitative data on source categories where VOC emissions are considered small. Additional computational techniques can also be applied to estimate emission factors for storage of organic chemicals and petroleum products.

LIST OF ABBREVIATIONS AND SYMBOLS

ABBREVIATIONS

A -- Ash content of fuel on a weight-by-percent basis
BBL -- Barrels*
BOF -- Basic Oxygen Furnace
CHP -- Cumene Hydroperoxide
DCBz -- Dichlorobenzene
DCB -- Dichlorobutene
DCIPE -- Dichloroisopropyl Ether
DCP -- Dichloropropane
DIPB -- Diisopropylbenzene
EAF -- Electric Arc Furnace
H.S.S. -- Horizontal Stud Soderberg
JP-4 -- Naphtha-Type Jet Fuel
LDV -- Light-Duty Vehicle
LPG -- Liquified Petroleum Gas
MBA-AP -- Methyl Benzyl Alcohol-Acetophenone
MCB -- Monochlorobenzene
MDI -- Methylenebis(4-phenyl isocyanate)
MEK -- Methyl Ethyl Ketone
MIBK -- Methyl Isobutyl Ketone
MDV -- Medium-Duty Vehicle
MMA -- Methyl Methacrylate
MMBtu/Hr -- Million British Thermal Units per Hour
NEG -- Negligible emissions
PART -- Particulate
PO -- Propylene Oxide
RVP -- Reid Vapor Pressure is the absolute pressure of gasoline at 100°F in psia as determined by ASTM Method D323-72.
S -- Sulfur content of fuel on a weight-by-percent basis.
SCC -- Source Classification Code

LIST OF ABBREVIATIONS AND SYMBOLS (cont'd.)

SCFM -- Standard Cubic Feet per Minute[*]
Sq. Ft. -- Square Feet[*]
TBA -- t-Butyl Alcohol
TDA -- Toluene Diamine
TDI -- Toluene Diisocyanate
VOC -- Volatile Organic Compound
V.S.S. -- Vertical Stud Soderberg
w/ -- with
w/o -- without

SYMBOLS

Ca -- Calcium
CO -- Carbon Monoxide
CO_2 -- Carbon Dioxide
$FeSi$ -- Ferrosilicon
HCl -- Hydrochloric Acid
HCN -- Hydrogen Cyanide
HNO_3 -- Nitric Acid
H_2SO_4 -- Sulfuric Acid
Lb -- Pound[*]
MgO -- Magnesium Oxide
Na -- Sodium
NH_3 -- Ammonia
NO_x -- Nitrogen Oxides
P_2O_5 -- Phosphorus Pentoxide
SO_x -- Sulfur Oxides
TiO_2 -- Titanium Dioxide

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[*] Readers more familiar with metric units may use the conversion table on page ix.

CONVERSION FACTORS

To Convert From	To	Multiply By
Acre	Square Meter (m^2)	4047
Acre	hectare (ha)	2.471
Barrel (Bbl)	Gallons (gal)	42
Barrel (Bbl)	Liters (l)	159
Gallon (gal)	Liters (l)	3.785
Drum	Gallons (gal)	55
Drum	Liters (l)	208
Inches (in)	Centimeters (cm)	2.54
Feet (ft)	Meter (m)	0.3048
Square feet (ft^2)	Square meter (m^2)	0.0929
Cubic feet (ft^3)	Cubic meter (m^3)	0.0283
Cubic feet (ft^3)	Liters (l)	28.316
Cubic feet/minute	Cubic centimeters/second	472.0
Cubic yard (yd^3)	Cubic meter (m^3)	0.77
Board foot	Cubic meter (m^3)	0.0024
Btu	Grams/calorie (g/cal)	251.98
Horsepower/hour	Btu	2454.0
Pound steam/hour	Btu/hour	1400.0
Btu/hour	Watts	0.293
Pounds (lbs)	Kilogram (kg)	0.45
Ton	kilogram (kg)	907.1
Pound/ton (lb/ton)	Gram/kilogram (g/kg)	0.496
Farenheit	Centigrade	($^{o}F-32$) 5/9

SECTION 1
INTRODUCTION

In October 1985, the U.S. Environmental Protection Agency (EPA) published the NEDS Source Classification Codes and Emission Factor Listing prepared by EPA's Office of Air Quality Planning and Standards (OAQPS). This document incorporated numerous additional source classification codes (SCC's), which serve as the basis for the National Emissions Data System (NEDS). OAQPS's 1985 document presents emission factors for the five NEDS pollutants (particulate matter, sulfur oxides, nitrogen oxides, volatile organic compounds, and carbon monoxide). Many of the added SCC's had no emission factors presented for volatile organic compounds (VOC).

As part of the National Acid Precipitation Assessment Program (NAPAP), the Air and Energy Engineering Research Laboratory (AEERL) of the U.S. Environmental Protection Agency (EPA) updated OAQPS's 1985 document. The focus of the effort was to supply factors for SCC's where substantial amounts of VOC emissions would be expected. Minor emphasis was placed on those SCC's where little or no VOC emissions were expected.

This report lists the VOC emission factors found in OAQPS's 1985 document by SCC. Further, the factors generated through this current effort have been added where no VOC factors had been presented previously. Within the table of emission factors presented here, the emission factor estimates that were recently added can be identified by the presence of a number in the NOTES column at the far right of each page. Notes explaining how each new emission factor estimate was derived are included in Appendix A of this report. The new factors, supplementing the AP-42 based factors published in October 1985, do not meet the current requirements for AP-42 factors. They are based upon scant data and emission factor estimates obtained from various air quality districts within States. These factors, however, do provide the first level of emissions estimating available.

SECTION 2

NEDS SCC'S AND EMISSION FACTOR LISTING

The Source Classification Codes (SCC's) presented herein comprise the basis upon which the National Emissions Data System (NEDS) is structured. Each SCC represents a specific process or function that is logically associated with a point source of air pollution within a given source category. In NEDS, any operation that causes air pollution can be represented by one or more of these SCC's. The SCC is the most critical NEDS data item since without an appropriate SCC, the source can not be properly identified for retrieval purposes, nor the source emissions properly calculated.

Also presented herein are emission factors that correspond to each SCC from the October 1985 document for volatile organic compounds (VOC). These factors are used in NEDS to automatically compute estimates of VOC emissions associated with a process when a more accurate estimate is not supplied to the system. For the most part these factors are taken directly from AP-42. In certain cases, however, they may be derived from better information not yet incorporated into AP-42 or based merely on the similarity of one process to another for which emissions information does exist.

The SCC and emission factor listing reported in the October 1985 report resulted from updating all emission factor changes through AP-42, Fourth Edition. The 1985 report contains a number of new SCC's. Also included are changes to any existing SCC's that appeared in the previous listing.

More information on NEDS data coding procedures may be found in AEROS Manual Volume II: AEROS User's Manual, EPA-450/2-76-029a. Instructions for coding specific sources may be found in the Engineering Reference Manual for Coding NEDS and EIS/P&R Forms - Volume I: Introduction, EPA-450/4-80-007; Volume II: Compendia of Processes, EPA-450/4-80-007; Volume III: Compendia of Processes, EPA-450/4-80-007. Codes used in coding NEDS data may be found in AEROS Manual Volume V: AEROS Manual of Codes, EPA-450/2-76-005a.

Additional information on NEDS data retrievals may be found in the publication NEDS National Emissions Data System Information, EPA-450/4-80-013a. This report is an extract of a more detailed publication: AEROS Manual Volume III: AEROS Summary and Retrieval Manual, EPA-450/2-76-009c. AEROS Volume III contains information on not only the NEDS system but the SAROAD (air quality) system as well.

SECTION 3
SOURCES OF INFORMATION

In the current work, the primary objective was to provide VOC emission factors for those SCC's having no current listing of VOC emission factors. The major effort was on those SCC's having readily available information and that emit a significant quantity of VOC emissions to the atmosphere. The new emission factors resulting from this current work are not of the same known quality as emission factors tabulated in AP-42. They were generated from sparse data on SOCMI units and from emission factor estimates provided by individual air quality districts within States.

A survey of the SCC and emission factor listing given in EPA's October 1985 NEDS document found that little data were presented for organic chemical manufacturing and storage of petroleum products and organic chemicals. These SCC's, therefore, were targeted as the highest priority in evaluating new emission factors. Lower priority was assigned to those categories where little or no VOC emissions were expected, such as inorganic chemical manufacturing and smelting/metal producing operations.

3.1 ORGANIC CHEMICAL MANUFACTURING

There are approximately 80 organic chemicals explicitly contained in the chemical manufacturing section of the NEDS document. Listed under each of these chemicals, by way of individual SCC's, are unit operations identified as having the potential to emit VOC directly to the atmosphere. A review of the NEDS document showed that VOC emission factors were required for various unit operations for approximately 75 percent of these organic chemicals.

The new emission factors provided herein were generated from data gathered during numerous standards-setting activities and from data provided from State emissions inventory data bases. The factors are presented in terms of pounds per SCC unit, which generally is related to production volume. For production processes, individual unit operations were considered where data were available. In some instances, however, only general overall VOC emissions for the process unit were known. In these cases, the "General" category presents an emission factor estimate for the entire process.

3.1.1 Fugitive emissions

Fugitive emissions of VOC, or equipment leaks, are not related to production volume, as are process vent emissions. Instead, equipment leaks are related to process unit complexity, i.e., the number of equipment components in the process units. Therefore, emission estimates for equipment leaks are presented as total annual emissions (tons/year or lbs/year) for individual process units. Estimates were prepared using the SOCMI average emission factors for individual equipment components and equipment counts for the process unit types included in the SOCMI studies of fugitive emissions. The procedure used in generating these emission factor estimates is presented in Appendix C.

The emission factor estimates for fugitive emissions given in the NAPAP listing that follows are presented as lbs/year values. In order to implement these estimates, the factor must be coded as a user-computed estimate and the production rate given as unity. In this way, the NEDS inventory computer program will automatically compute the annual emissions for equipment leaks.

3.1.2 SOCMI Docket Information

Three regulatory development programs were identified that could provide information to develop VOC factors for organic chemical manufacturing. These sources are the dockets for the new source performance standards (NSPS) for air oxidation, distillation operations and reactor processes in the SOCMI. (Dockets contain all background information, reference material, and correspondence pertaining to the development of standards.) Contained in the dockets are VOC emission data and process descriptions for a large number of organic chemical manufacturing processes. This information was obtained from industry responses to Clean Air Act Section 114 letters during the development of NSPS in the SOCMI under Title 40, Part 60 of the Code of Federal Regulations.

Each Section 114 response contains a complete stream description of all process emissions (flow rate, composition, and temperature) and the nominal operating capacity of the facility. The stream description is used to calculate a VOC emission rate for a point source of process emissions (e.g., a unit operation). A VOC emission factor estimate was obtained (in units of lbs VOC/ton of product) by dividing the VOC emission rate by that facility's nominal operating capacity. There was sufficient industry information to calculate VOC emission factors for approximately 30 percent of the organic chemicals in the October 1985 NEDS document lacking emission factors.

It was found that some of the industry responses contained only enough information to calculate an emission factor for a single unit operation within an organic chemical listing. However, many of the responses contained sufficient information to calculate emission factors for many or all of the unit operations within a single chemical listing. The VOC emission factors developed from these responses were entered into the NAPAP listing contained herein. In a few cases, there were several equally complete industry responses obtained for the manufacture of a single chemical. In these instances the calculated emission factors were averaged and this average value was entered into this NAPAP listing.

3.1.3 Industry Wide Studies

Two studies of the organic chemical industry were used to estimate VOC emission factors for processes where information was not available in the standards development dockets. A ten volume report prepared by IT Enviroscience in 1980 and a four volume survey report prepared in 1974 using data gathered by the Houdry Division of Air Products and Chemicals, Inc. were reviewed for supplemental information on VOC emission factors for the various unit processes.

The IT Enviroscience report entitled Organic Chemical Manufacturing (EPA-450/3-80-023a-j) includes technical reports on the manufacturing of 39 organic chemicals. Each report contains information on plants producing a particular chemical product, typical production rates, associated VOC emissions, feasible emission controls and control costs. Tables estimating national VOC emission factors for each unit process are included in the reports. All emission factors are reported in metric units and consequently were converted to the appropriate SCC units before entry into this NAPAP listing. Information concerning VOC emission factors for approximately 40 percent of the organic chemicals previously without emission factors was collected from these volumes.

The Houdry report entitled Survey Reports on Atmospheric Emissions from the Petrochemical Industry (EPA-450/3-73-005a-d) includes information on the manufacturing of organic chemicals. The data contained in these reports were collected in the early 1970's and consequently may not truly reflect current production processes. For this reason, the emissions data from these reports were used only when no other information was available. Emission factor estimates for seven different organic chemicals, comprising less than 10 percent of the new emission factor estimates, are from this source and should be considered the lowest quality of the listed emission factors.

3.1.4 Miscellaneous Sources Used

A number of source specific documents, including Background Information Documents (BIDS), Source Assessments, and chemical-specific emission source survey documents, were used to gather information on VOC emission factors. Appendix A lists detailed information on the various documents that were reviewed, including complete titles and EPA publication numbers.

Much of the data used in standards development activities was obtained from State files and confirmed in later correspondence with individual manufacturing sites. State emission inventories, therefore, were thought to be a potentially valuable resource for emission factor estimates for categories lacking emission factors in the October 1985 NEDS document. Six States (California, Texas, Louisiana, Illinois, New Jersey, West Virginia) were contacted in an attempt to gather information on emission factors used within the industry. These States were selected because the largest portion of the organic chemical industry (on a production volume basis) is represented in these locations. Therefore, these States would potentially have the highest amount of process-related emissions. Most of the States contacted did not have data available in a usable form (confidential files, unverified data, etc.). However, some current emission factor data were made available for inclusion into this report. Table 3-1 summarizes the sources of information used to calculate emission factor estimates for categories lacking emission factors in the October 1985 NEDS document.

3.2 STORAGE OF PETROLEUM PRODUCTS AND ORGANIC CHEMICALS

Estimates of VOC emission factors were prepared for storage of petroleum products and organic compounds using the newly revised equations for VOC losses from storage tanks published by the American Petroleum Institute (API). Tank dimensional data were repeated from previous work published in AP-42, Third Edition. Vapor pressure and product density data were derived from published literature on physical properties of organic compounds. Both fixed roof and floating roof emission factors were estimated; in addition, factors were estimated for breathing losses and working losses.

3.3 METALS-ORIENTED OPERATIONS

Numerous metals-oriented operations were listed by SCC with no associated emission factor for VOC. EPA's Office of Air Quality Planning and Standards (OAQPS) has investigated numerous smelting and metals processing industries for possible new source performance standards for criteria pollutants. In the judment of various standards-setting personnel within OAQPS, smelting operations (primary and secondary copper, lead, and zinc) have negligible emissions of VOC associated with them. This information is reported as negligible (NEG) emission factors in the listing contained in this report.

TABLE 3-1. SUMMARY OF NEW VOC EMISSION FACTORS FOR THE CHEMICAL MANUFACTURING INDUSTRY

Chemical	Percent of SCC that emission factor estimates have been completed	Sources Used[a]
Adipic acid	10%	Fugitive Documents[b]
Charcoal	20%	State files
Nitric acid	100%	BID[c]
Polyethylene	75%	Source Assessment, BID[c]
Polystyrene	50%	Source Assessment, BID[c]
Polyester	25%	Source Assessment
Sodium carbonate	100%	BID[c]
Sulfuric acid	100%	Review of NSPS document
Ammonium nitrate	100%	Source Assessment
AMINES/AMIDES		
Aniline	40%	SOCMI Dockets
Ethanolamines	40%	SOCMI Dockets, State files
Urea	100%	Source Assessment
Methyl ethyl ketone	50%	SOCMI Dockets
Acetone	100%	SOCMI Dockets, Fugitive Documents[b]
Maleic anhydride	75%	SOCMI Dockets, State files
ALDEHYDES		
Formaldehyde	100%	SOCMI Dockets, CTG[d], Fugitive Documents[b]
Acetaldehyde	100%	CTG[d], OCM[e], Fugitive Documents[b]
Butyraldehyde	100%	SOCMI Dockets
Acrolein	50%	OCM[e]
Chloroprene	75%	OCM[e]
ORGANOHALOGENS		
Ethylene dichloride	75%	SOCMI Dockets, Fugitive Documents[b]
Chloromethanes	75%	SOCMI Dockets
Perchloroethylene	100%	Emission Source Survey, Fugitive Documents[b]
Trichloroethylene	75%	Emission Source Survey, Fugitive Documents[b]
Chlorobenzene	100%	SOCMI Dockets
Vinyl chloride	75%	Survey Reports[f], Fugitive Documents[b]
Vinylidene chloride	75%	SOCMI Dockets
Fluorocarbons	75%	SOCMI Dockets
ORGANIC ACIDS		
Acetic acid	60%	CTG[d]
Acrylic acid	80%	OCM[e], CTG[d]
Acetic anhydride	75%	OCM[d], Survey Reports[f]
Esters	100%	SOCMI Dockets
Bisphenol	100%	SOCMI Dockets
Butadiene	50%	OCM[e], CTG[d]

TABLE 3-1. SUMMARY OF NEW VOC EMISSION FACTORS FOR THE CHEMICAL MANUFACTURING INDUSTRY (cont'd.)

Chemical	Percent of SCC that emission factor estimates have been completed	Sources Used[a]
Cumene	90%	OCM[e], Fugitive documents[b]
Cyclohexane	50%	Survey Reports[f]
Cyclohexanone/ol	100%	OCM[e]
Vinyl acetate	100%	OCM[e], State files, SOCMI Dockets, Fugitive Documents[b]
Ethylbenzene	90%	SOCMI Dockets
Ethylene oxide	50%	SOCMI Dockets, Source Specific Report
Glycerin	50%	OCM[e], Survey Reports[f]
Toluene diisocyanate	75%	OCM[e],
Methyl methacrylate	100%	OCM[e], Fugitive documents[b]
Nitrobenzene	100%	SOCMI Dockets, OCM[e]
OLEFINS		
Ethylene	75%	Survey Reports, Fugitive documents[b]
Propylene	20%	SOCMI Dockets
Butylene	50%	State files
Phenol	50%	Survey Reports[f]
Propylene oxide	90%	OCM[e], SOCMI Dockets
Styrene	50%	SOCMI Dockets, State files
Caprolactam	75%	OCM[e]
Linear alkylbenzene	75%	OCM[e], SOCMI Dockets
ALCOHOLS		
Methanol	75%	OCM[e], SOCMI Dockets
Ethylene glycol	75%	SOCMI Dockets
Glycol ethers	80%	OCM[e]
Acrylonitrile	100%	OCM[e], CTG[d], Fugitive Documents[b]
Adiponitrile	60%	Survey Reports[f], SOCMI Dockets
AROMATICS		
Benzene	30%	SOCMI Dockets
Chlorobenzene	80%	OCM[e], SOCMI Dockets
Carbon tetrachloride	50%	OCM[e]
Allyl chloride	30%	OCM[e]
Allyl alcohol	75%	OCM[e]
Epichlorohydrin	75%	SOCMI Dockets

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[a] Consult Appendix A for complete references.
[b] Numerous fugitive documents were used which are described in Appendix C.
[c] Background Information Documents.
[d] Control Technology Guidelines.
[e] Organic Chemical Manufacturing Reports.
[f] Survey Reports on Atmospheric Emissions from the Petrochemical Industry.

SECTION 4

QUALITY OF NEW EMISSION FACTOR ESTIMATES

Emission factor estimates that have been added to this NAPAP listing are not of the same quality as the previously reported AP-42-based emission factors. In terms of the AP-42 ratings, the estimates provided from this effort would be considered of "E" quality. The scope of this effort was to fill in gaps in the data in the 1985 NEDS document with readily available data for VOC emission factors. As previously discussed, information was gathered from a variety of sources including unverified State data and secondary references such as draft or unpublished reports, and personal communication.

Within the main table of this report, new emission factor estimates are readily identified by the presence of a number in the NOTES column to the far right of each page. Each new emission factor estimate listed in this document has a note explaining the source of information and calculation methods. These notes are found in Appendix A. All other emission factors which do not have a number associated with them in the NOTES column, have been extracted directly from the 1985 NEDS document.

SECTION 5
EMISSIONS CALCULATION PROCEDURES

In order to calculate emissions using the emission factors in this publication, certain data values must be present. These values include: (1) an annual operating rate, (2) fuel parameter, if applicable; (3) emission factor from the SCC file, and (4) percent (%) control efficiency, if a control device is present. Calculated emissions are derived as follows:

Calculated Emissions (Tons/Year) =

$$\frac{\text{Annual Operating Rate for SCC} \times \text{Emission Factor From SCC File} \times \text{Fuel Parameter If Applicable}}{\text{2,000 Pounds/Ton}} \times \frac{\text{100-Control Efficiency}}{100}$$

where:

Annual Operating Rate = SCC Units/Year

Emission Factor = Pounds/SCC Unit

Fuel Parameter = Ash or Sulfur Content of Fuel on Weight-by-Percent (%) basis

Control Efficiency = Pollutant Control Device Percent (%) Efficiency

5.1 FUGITIVE EMISSIONS CALCULATIONS

The NEDS SCC's were recently expanded to include many individual unit operations within chemical process units. One additional SCC in most chemical process units is for "Fugitive Emissions: General". Fugitive emissions of VOC, or equipment leaks, are not proportional to production rate. Rather, they are associated with process unit complexity, i.e., the number of equipment components in the process unit. As a result, the VOC emissions from equipment leaks are presented in terms of pounds VOC/year, not pounds per SCC unit as with the remaining SCC's. To implement the fugitive emissions estimate given in the listing, the source must be coded with NEDS emission estimation method code 3 (emissions to be calculated by a computerized method) with an associated production volume of unity. This permits the NEDS inventory computer program to automatically calculate emissions.

Emissions estimates are presented for equipment leaks in a limited number of chemical process unit types. Estimates are limited to those fourteen process units studied during the development of New Source Performance Standards (NSPS) for equipment leaks in SOCMI. Additional discussion of estimating fugitive emissions is presented in Appendix C.

5.2 VOC EMISSIONS CALCULATION

Per agency policy and EPA guidance to States for the preparation of emission inventories of volatile organic compounds, those VOC that are considered to be photochemically nonreactive under atmospheric conditions should not be included in emission inventories for ozone SIP development. This subject is discussed further in the report Procedures for the Preparation of Emission Inventories for Volatile Organic Compounds, Volume I (Second Edition) EPA-450/2-77-028. However, some of these photochemically nonreactive VOC are toxic (e.g., methylene chloride) and should be included in air toxics inventories. Air toxics are not addressed specifically in this document. Therefore, special considerations must be made on an individual basis when toxics inventories are compiled.

Nonreactive VOC components are identified per data given in the VOC Species Data Manual (Second Edition) EPA-450/4-80-015 and the publication Compilation of Air Pollutant Emission Factors, AP-42. However, some categories do not have VOC species data. These categories use the AP-42 nonmethane VOC emission factors to represent nonreactive VOC emission factors. The following compounds are considered to be photochemically nonreactive:

Methane
Ethane
Trichlorotrifluoroethane (Freon 113)
Methylene Chloride
1,1,1-Trichloroethane (Methyl Chloroform)

Trichlorofluoromethane
Dichlorodifluoromethane
Chlorodifluoromethane
Trifluoromethane
Dichlorotetrafluoroethane
Chloropentafluoroethane

In some State-based data (for example, California), emissions of organic compounds are viewed as total organics, with the fraction of reactive organic compounds also reported. While the classification of reactive organic compounds is similar to EPA's definition of VOC, this classification is somewhat different, at least in California, in that it includes ethane. In compiling emission factors for the SCC's in the organic chemical manufacturing section, the effect of this definition on the emission factor was deemed negligible.

SECTION 6
RECOMMENDATIONS FOR FURTHER STUDY

This section discusses the portions of the SCC listing for which VOC emission factor estimates have not been presented to date. In examining these areas that are deficient in emissions data, recommendations are made for further study to complete the emission factor estimates for the majority of the SCC's that currently have no estimates. Potential data sources, estimation procedures, and resource requirements are given.

A review of the October 1985 NEDS document shows that there are 13 major classifications for which VOC emission factor estimates were not developed for many of the operations described by subclassifications. Table 6-1 presents these major classifications (and various subclassifications) and the sources of information that could be used to develop VOC emission factors.

Four classifications for which VOC emission factors were not developed for many of the more prominent subclassifications are chemical manufacturing, primary and secondary metal production, and organic chemical storage. Based on an understanding of the raw materials used in many of the processes contained in the NEDS document, the classifications presented in Table 6-1 can be divided into two groups. The first group contains classifications that are expected to have some quantifiable VOC emissions. The second group contains classifications where the VOC emissions are considered to be negligible.

In preparing the emission factor estimates given in this document, most of the attention was placed on organic chemical processes, petroleum product storage, and organic chemical storage. The data sources that were used included: (1) State agency data files, (2) data contained in dockets for standards development programs, (3) EPA-published data in background information documents (BID's) and control techniques guidelines (CTG) documents, and (4) calculations using published correlations and practices.

For future study, State data files and calculations would provide the best potential for development of additional emission factor estimates. Research into processing details is viewed as the route for examining the VOC

TABLE 6-1. EMISSION SOURCES WITHOUT VOC EMISSION FACTORS AND POTENTIAL SOURCES OF INFORMATION

Emission Source	Information Source	Group[a]
CHEMICAL MANUFACTURING		
Explosives - Trinitrotoluene	State data (NJ)[b]	1
Phosphoric acid	NSPS data[c]	
Synthetic organic fiber production	CTG/NSPS data[c,d]	
Pharmaceutical preparations	State data (IN, NJ, NY, PR), Source Assessment[e,f]	
Acetylene production	State data[e]	
Alcohols production	Source Assessment[f]	
Toluene	Source Assessment[f]	
Mixed xylenes	Source Assessment[f]	
PRIMARY METAL PRODUCTION		
Aluminum ore: electro-reduction	Telephone contact to states where these industries are located	2
Ferroalloy (open furnace)	"	
Sintering	"	
Steel production	"	
Barium ore processing	"	
Taconite iron ore processing	"	
Metal mining	"	
Fuel fired equipment	"	
SECONDARY METAL PRODUCTION		
Secondary aluminum	State data[e]	1
Secondary copper smelting and alloying	State data[e]	
Gray iron foundries	State data[e]	
Steel foundry	State data[e]	
Secondary zinc	State data[e]	
PULP AND PAPER INDUSTRY		
Sulfate (Kraft) pulping	NSPS data[c]	2
Sulfite pulping	NSPS data[c]	
Wood pressure treating	NSPS data[c]	
Wood products - fugitive emissions	NSPS data[c]	
Wood products - fuel fired equipment	NSPS data[c]	

TABLE 6-1. EMISSION SOURCES WITHOUT VOC EMISSION FACTORS AND POTENTIAL SOURCES OF INFORMATION (cont'd.)

Emission Source	Information Source	Group[a]
BUILDING CONSTRUCTION	Processing details[g]	2
ELECTRICAL EQUIPMENT	Processing details[g]	2
TRANSPORTATION EQUIPMENT	Processing details[g]	2
TEXTILE PRODUCTS	State data (NC, SC, TN)[e]	1
ORGANIC SOLVENT DEGREASING	Source Assessment[f]	1
PETROLEUM PRODUCT STORAGE		
External floating roof tanks Internal floating roof tanks	State data (NJ, LA, TX, IL, CA)[h]	1
BULK PLANTS PETROLEUM STORAGE	State data (NJ, LA, TX)[h]	1
ORGANIC CHEMICAL STORAGE	State data[h]	1
TSDF/POTW	OAQPS[i]	1

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[a] Category 1 includes source classifications for which emission factor estimates can be developed by using emissions data from state files. Emission factor estimates cannot be developed from state data for Category 2 sources at this time.

[b] This material is manufactured by E.I. du Pont de Nemours and Co., Inc. at their Deepwater, New Jersey plant.

[c] New Source Performance Standard (NSPS). Data obtained from background information document (BID).

[d] Control techniques guideline (CTG) document describing process emissions in the manufacture of synthetic organic fibers.

[e] Emissions data obtained from States (files) where this industry is located.

[f] Source assessment survey that identifies the locations and sources of VOC emissions.

[g] From literature describing the manufacture of this product (e.g., raw materials, process information, refining).

[h] Data obtained from States where these chemicals are stored and use of modeling equations contained in AP-42 to predict VOC emissions from storage tanks.

[i] Data obtained from EPA's Office of Air Quality Planning and Standards (OAQPS).

emissions potential for sources that are unlikely to be large VOC emitters. In some instances, calculational approaches appear to provide the most direct method of generating emission factor estimates for storage of "generic" chemical groups.

6.1 STATE CONTACTS

Several States were contacted to request data to develop VOC emission factors. Much of the data received from the States were used to develop VOC emission factors for the chemical manufacturing and organic chemical storage operations. Several States not providing data in this initial effort have been identified for further data gathering for group 1 classifications. This is supported by telephone contacts with State environmental agencies and the willingness of these agencies to provide these data. The States targeted as potential data resources include Delaware, New Jersey, Louisiana, Illinois, Texas, and West Virginia.

Emissions data obtained from State agencies generally will only be released provided there is assurance that confidential information will not be inserted directly into a document that will be made available to the public. Some States have VOC emissions data that can be provided directly, and be retrieved relatively easily from computer data bases by SCC code. For other States, the emissions data are stored in paper files, and can be obtained only through a site visit to the State environmental agency.

It is believed that development of VOC emission factors for group 2 classifications cannot be based on State emissions data. This would have to be verified through telephone contacts with State agencies where the industries of interest are located.

6.2 LITERATURE RESEARCH

As mentioned previously, processes within group 2 classifications (e.g., primary metal production, building construction, and electrical equipment) are expected to have negligible VOC emissions. Although there has been no VOC emissions testing of processes within these classifications, this assumption is based, in part, on a basic understanding of the nature of these processes and through telephone contacts with EPA personnel who have knowledge of processes within these classifications. Assigning a negligible VOC emissions factor to these processes would be based on a review of the various sources of literature that describe the raw materials and manufacturing processes of products or related elements within these classifications.

6.3 OFFICE OF AIR QUALITY PLANNING AND STANDARDS (OAQPS)

It is believed that VOC emission factors for a few of the classifications in both Group 1 and Group 2 can be obtained from information contained in background documents for new source performance standards (NSPS) and control technique guideline (CTG) documents (e.g., synthetic organic fiber production, fuel-fired equipment, and pulp and paper industry). OAQPS personnel would be contacted to provide these documents and insight into these particular processes. If, however, VOC emission factors are not explicitly stated in these documents, then OAQPS personnel having experience in areas within these classifications would be contacted to provide an estimate of VOC emission factors for these operations.

EPA's OAQPS is currently conducting standards development activities for treatment, storage, and disposal facilities (TSDF's). This group of sources is seen as having a large potential for atmospheric emissions of VOC. Efforts are in progress to develop nationwide estimates of VOC emissions from TSDF's. Data on waste streams are being gathered for use in models developed to simulate various facility designs and emissions mechanisms. The results of these modeling efforts are expected in March 1986.

In a parallel endeavor, the TSDF project team is also gathering data from the EPA Office of Water (OW) and the EPA Office of Solid Waste (OSW) on waste streams handled by publicly-owned treatment works (POTW's). POTW's represent another potentially large source of VOC emissions that have not as yet been estimated. Data gathered by the TSDF team will be used in TSDF models to estimate nationwide emissions of VOC and hazardous air pollutants (HAP's) for various standards development programs. The data gathering efforts should begin in April 1986. Both of these programs would be targeted to estimate emission factors for TSDF's and POTW's.

6.4 CALCULATIONAL PROCEDURES

In this current effort, estimates of VOC emission factors have been generated for a large number of specific organic chemicals. By using API correlations for working losses and standing losses, emission factors were estimated based upon published vapor pressure data and tank dimensional information supplied in an earlier edition of AP-42. Estimates are still lacking for "generic" chemical groups, such as alkanes, alkenes, amines, and alcohols. Future work would involve applying these estimation techniques for specific chemicals listed by the International Trade Commission (ITC) under each generic group. These emission factor estimates would then be weighted to provide the emission factor estimate. For example, for standing losses, individual estimates could be weighted by nationwide capacity data. For working losses, ITC production data could be used to weight the individual emission factor estimates.

SECTION 7

SOURCE CLASSIFICATION CODES AND VOC EMISSION FACTORS

This section contains VOC emission factors previously reported in OAQPS's 1985 NEDS document and VOC emission factors recently developed by the AEERL of the U. S. Environmental Protection Agency. Emission factor estimates that have been added as a result of this effort can be identified by the presence of a number in the NOTES column to the far right of each page. All other emission factors listed, without a number associated with them in the NOTES column, have been extracted directly from OAQPS's 1985 NEDS document.

SCC	Process	VOC Lbs/Unit	Units	Notes
EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION - 4911[A]				
Anthracite Coal				
1-01-001-01	Pulverized Coal	0.07	Tons Burned	
1-01-001-02	Traveling Grave Stokers	0.07	Tons Burned	
Bituminous Coal				
1-01-002-01	Pulverized Coal: Wet Bottom	0.07	Tons Burned	
1-01-002-02	Pulverized Coal: Dry Bottom	0.07	Tons Burned	
1-01-002-03	Cyclone	0.07	Tons Burned	
1-01-002-04	Spreader Stoker	0.07	Tons Burned	
1-01-002-05	Traveling Grate (Overfeed) Stoker	0.07	Tons Burned	
1-01-002-12	Pulverized Coal: Dry Bottom (Tangential Firing)	0.07	Tons Burned	
1-01-002-17	Atmospheric Fluidized Bed		Tons Burned	
Subbituminous Coal				
1-01-002-21	Pulverized Coal: Wet Bottom	0.07	Tons Burned	
1-01-002-22	Pulverized Coal: Dry Bottom	0.07	Tons Burned	
1-01-002-23	Cyclone	0.07	Tons Burned	
1-01-002-24	Spreader Stoker	0.07	Tons Burned	
1-01-002-25	Traveling Grate (Overfeed) Stoker	0.07	Tons Burned	
1-01-002-26	Pulverized Coal: Dry Bottom (Tangential Firing)	0.07	Tons Burned	
Lignite				
1-01-003-01	Pulverized Coal	0.07	Tons Burned	
1-01-003-02	Pulverized Coal: Tangential Firing	0.07	Tons Burned	
1-01-003-03	Cyclone	0.07	Tons Burned	
1-01-003-04	Traveling Grate (Overfeed) Stoker	0.07	Tons Burned	
1-01-003-06	Spreader Stoker	0.07	Tons Burned	
Residual Oil				
1-01-004-01	Grade 6 Oil: Normal Firing (Includes horizontally, opposed and front wall firing)	0.76	10^3 Gallons Burned	
1-01-004-04	Grade 6 Oil: Tangential Firing	0.76	10^3 Gallons Burned	
1-01-004-05	Grade 5 Oil: Normal Firing	0.76	10^3 Gallons Burned	
1-01-004-06	Grade 5 Oil: Tangential Firing	0.76	10^3 Gallons Burned	
Distillate Oil				
1-01-005-01	Grades 1 and 2 Oil	0.2	10^3 Gallons Burned	
1-01-005-04	Grade 4 Oil: Normal Firing	0.76	10^3 Gallons Burned	
1-01-005-05	Grade 4 Oil: Tangential Firing	0.76	10^3 Gallons Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Natural Gas				
1-01-006-01	Boilers over 100 MMBtu/Hr except tangentially fired units	1.4	10^6 Cubic Feet Burned	
1-01-006-02	Boilers under 100 MMBtu/Hr except tangentially fired units	2.8	10^6 Cubic Feet Burned	
1-01-006-04	Tangentially Fired Boilers	1.4	10^6 Cubic Feet Burned	
Process Gas (Specify Gas in Comments)[c]				
1-01-007-01	Boilers over 100 MMBtu/Hr	1.4	10^6 Cubic Feet Burned	
1-01-007-02	Boilers under 100 MMBtu/Hr	2.8	10^6 Cubic Feet Burned	
Coke[c]				
1-01-008-01	All Boiler Sizes	0.07	Tons Burned	
Wood/Bark Waste				
1-01-009-01	Bark-Fired Boiler	1.4	Tons Burned	
1-01-009-02	Wood/Bark-Fired Boiler	1.4	Tons Burned	
1-01-009-03	Wood-Fired Boiler	1.4	Tons Burned	
Liquified Petroleum Gas (LPG)				
1-01-010-01	Butane	0.26	10^3 Gallons Burned	
1-01-010-02	Propane	0.25	10^3 Gallons Burned	
Bagasse				
1-01-011-01	All Boiler Sizes	2.0[d]	Tons Burned	
Solid Waste				
1-01-012-01	Specify Waste Material In Comments		Tons Burned	
Liquid Waste				
1-01-013-01	Specify Waste Material in Comments		10^3 Gallons Burned	
1-01-013-02	Waste Oil		10^3 Gallons Burned	
EXTERNAL COMBUSTION BOILERS - INDUSTRIAL[a]				
Anthracite Coal				
1-02-001-01	Pulverized Coal	0.07	Tons Burned	
1-02-001-04	Traveling Grate Stokers	0.07	Tons Burned	
1-02-001-07	Hand-Fired	10.0	Tons Burned	
Bituminous Coal				
1-02-002-01	Pulverized Coal: Wet Bottom	0.07	Tons Burned	
1-02-002-02	Pulverized Coal: Dry Bottom	0.07	Tons Burned	
1-02-002-03	Cyclone	0.07	Tons Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Bituminous Coal (Continued)				
1-02-002-04	Spreader Stoker	0.07	Tons Burned	
1-02-002-05	Overfeed Stoker	0.07	Tons Burned	
1-02-002-06	Underfeed Stoker	1.3	Tons Burned	
1-02-002-12	Pulverized Coal: Dry Bottom (Tangential Firing)	0.07	Tons Burned	
1-02-002-17	Atmospheric Fluidized Bed		Tons Burned	
1-02-002-19	Cogeneration	0.07	Tons Burned	
Subbituminous Coal				
1-02-002-21	Pulverized Coal: Wet Bottom	0.07	Tons Burned	
1-02-002-22	Pulverized Coal: Dry Bottom	0.07	Tons Burned	
1-02-002-23	Cyclone	0.07	Tons Burned	
1-02-002-24	Spreader Stoker	0.07	Tons Burned	
1-02-002-25	Traveling Grate (Overfeed) Stoker	0.07	Tons Burned	
1-02-002-26	Pulverized Coal: Dry Bottom (Tangential Firing)	0.07	Tons Burned	
1-02-002-29	Cogeneration	0.07	Tons Burned	
Lignite				
1-02-003-01	Pulverized Coal	0.07	Tons Burned	
1-02-003-02	Pulverized Coal: Tangential Firing	0.07	Tons Burned	
1-02-003-03	Cyclone	0.07	Tons Burned	
1-02-003-04	Traveling Grate (Overfeed) Stoker	0.07	Tons Burned	
1-02-003-06	Spreader Stoker	0.07	Tons Burned	
1-02-003-07	Cogeneration	0.07	Tons Burned	
Residual Oil				
1-02-004-01	Grade 6 Oil	0.28	10^3 Gallons Burned	
1-02-004-04	Grade 5 Oil	0.28	10^3 Gallons Burned	
1-02-004-05	Cogeneration	0.28	10^3 Gallons Burned	
Distillate Oil				
1-02-005-01	Grades 1 and 2 Oil	0.2	10^3 Gallons Burned	
1-02-005-04	Grade 4 Oil	0.2	10^3 Gallons Burned	
1-02-005-05	Cogeneration	0.2	10^3 Gallons Burned	
Natural Gas				
1-02-006-01	Over 100 MMBtu/Hr	1.4	10^6 Cubic Feet Burned	
1-02-006-02	10-100 MMBtu/Hr	2.8	10^6 Cubic Feet Burned	
1-02-006-03	Less Than 10 MMBtu/Hr	5.3	10^6 Cubic Feet Burned	
1-02-006-04	Cogeneration	1.4	10^6 Cubic Feed Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Process Gas				
1-02-007-01	- Petroleum Refinery Gas[c]	2.8	10^6 Cubic Feet Burned	
1-02-007-04	- Blast Furnace Gas	0.0[d]	10^6 Cubic Feet Burned	
1-02-007-07	- Coke Oven Gas	1.2[d]	10^6 Cubic Feet Burned	
1-02-007-10	- Cogeneration		10^6 Cubic Feet Burned	
1-02-007-99	- Other: Specify in Comments		10^6 Cubic Feet Burned	
Coke[c]				
1-02-008-02	- All Boiler Sizes	0.07	Tons Burned	
1-02-008-04	- Cogeneration	0.07	Tons Burned	
Wood/Bark Waste				
1-02-009-01	- Bark-Fired Boiler (Greater than 50,000 LB Steam)	1.4	Tons Burned	
1-02-009-02	- Wood/Bark-Fired Boiler (Greater than 50,000 LB Steam)	1.4	Tons Burned	
1-02-009-03	- Wood-Fired Boiler (Greater than 50,000 LB Steam)	1.4	Tons Burned	
1-02-009-04	- Bark-Fired Boiler (Less than 50,000 LB Steam)	1.4	Tons Burned	
1-02-009-05	- Wood/Bark-Fired Boiler (Less than 50,000 LB Steam)	1.4	Tons Burned	
1-02-009-06	- Wood-Fired Boiler (Less than 50,000 LB Steam)	1.4	Tons Burned	
1-02-009-07	- Wood Cogeneration	1.4	Tons Burned	
Liquified Petroleum Gas (LPG)				
1-02-010-01	- Butane	0.26	10^3 Gallons Burned	
1-02-010-02	- Propane	0.25	10^3 Gallons Burned	
Bagasse				
1-02-011-01	- All Boiler Sizes	2.0[d]	Tons Burned	
Solid Waste				
1-02-012-01	- Specify Waste Material in Comments		Tons Burned	
Liquid Waste (See Major Group 26, SCC 3-07-001-04 for pulp mill recovery boilers)				
1-02-013-01	- Specify Waste Meterial in Comments		10^3 Gallons Burned	
1-02-013-02	- Waste Oil		10^3 Gallons Burned	
CO Boiler[c]				
1-02-014-01	- Natural Gas	2.8	10^6 Cubic Feet Burned	
1-02-014-02	- Process Gas	2.8	10^6 Cubic Feet Burned	
1-02-014-03	- Distillate Oil	0.2	10^3 Gallons Burned	
1-02-014-04	- Residual Oil	0.28	10^3 Gallons Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INSTITUTIONAL[a]				
Anthracite Coal				
1-03-001-01	Pulverized Coal	0.07	Tons Burned	
1-03-001-02	Traveling Grate Stokers	0.07	Tons Burned	
1-03-001-03	Hand-Fired	10.0	Tons Burned	
Bituminous Coal				
1-03-002-05	Pulverized Coal: Wet Bottom	0.07	Tons Burned	
1-03-002-06	Pulverized Coal: Dry Bottom	0.07	Tons Burned	
1-03-002-07	Overfeed Stoker	0.07	Tons Burned	
1-03-002-08	Underfeed Stoker	1.3	Tons Burned	
1-03-002-09	Spreader Stoker	0.07	Tons Burned	
1-03-002-14	Hand-Fired	10.0	Tons Burned	
1-03-002-16	Pulverized Coal: Dry Bottom (Tangential Firing)	0.07	Tons Burned	
1-03-002-17	Atmospheric Fluidized Bed		Tons Burned	
Subbituminous Coal				
1-03-002-21	Pulverized Coal: Wet Bottom	0.07	Tons Burned	
1-03-002-22	Pulverized Coal: Dry Bottom	0.07	Tons Burned	
1-03-002-23	Cyclone	0.07	Tons Burned	
1-03-002-24	Spreader Stoker	0.07	Tons Burned	
1-03-002-25	Traveling Grate (Overfeed) Stoker	0.07	Tons Burned	
1-03-002-26	Pulverized Coal: Dry Bottom (Tangential Firing)	0.07	Tons Burned	
Lignite				
1-03-003-05	Pulverized Coal	0.07	Tons Burned	
1-03-003-06	Pulverized Coal: Tangential Firing	0.07	Tons Burned	
1-03-003-07	Traveling Grate (Overfeed) Stoker	0.07	Tons Burned	
1-03-003-07	Spreader Stoker	0.07	Tons Burned	
Residual Oil[c]				
1-03-004-01	Grade 6 Oil	1.13	10^3 Gallons Burned	
1-03-004-04	Grade 5 Oil	1.13	10^3 Gallons Burned	
Distillate Oil				
1-03-005-01	Grades 1 and 2 Oil	0.34	10^3 Gallons Burned	
1-03-005-04	Grade 4 Oil	0.34	10^3 Gallons Burned	
Natural Gas				
1-03-006-01	Over 100 MMBtu/Hr	1.4	10^6 Cubic Feet Burned	
1-03-006-02	10-100 MMBtu/Hr	2.8	10^6 Cubic Feet Burned	
1-03-006-03	Less Than 10 MMBtu/Hr	5.3	10^6 Cubic Feet Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Process Gas				
1-03-007-01	Sewage Gas		10^6 Cubic Feet Burned	
1-03-007-99	Other Not Classified		10^6 Cubic Feet Burned	
Wood/Bark Waste				
1-03-009-01	Bark-Fired Boiler	1.4	Tons Burned	
1-03-009-02	Wood/Bark-Fired Boiler	1.4	Tons Burned	
1-03-009-03	Wood-Fired Boiler	1.4	Tons Burned	
Liquid Petroleum Gas (LPG)				
1-03-010-01	Butane	0.5	10^3 Gallons Burned	
1-03-010-02	Propane	0.47	10^3 Gallons Burned	
Solid Waste				
1-03-012-01	Specify Waste Material in Comments		Tons Burned	
Liquid Waste				
1-03-013-01	Specify Waste Material in Comments		10^3 Gallons Burned	
1-03-013-02	Waste Oil		10^3 Gallons Burned	
1-03-013-03	Sewage Grease Skimmings		10^3 Gallons Burned	
EXTERNAL COMBUSTION - SPACE HEATERS				
Industrial Space Heaters[c]				
1-05-001-05	Distillate Oil	0.7	10^3 Gallons Burned	
1-05-001-06	Natural Gas	5.3	10^6 Cubic Feet Burned	
1-05-001-10	Liquified Petroleum Gas (LPG)	0.5	10^3 Gallons Burned	
Commercial Space Heaters				
1-05-002-05	Distillate Oil[c]	0.7	10^3 Gallons Burned	
1-05-002-06	Natural Gas[c]	5.3	10^6 Cubic Feet Burned	
1-05-002-09	Wood[d]	1.7	Tons Burned	
1-05-002-10	Liquified Petroleum Gas (LPG)[c]	0.5	10^3 Gallons Burned	
INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION - 4911				
Distillate Oil (Diesel)				
2-01-001-01	Turbine	4.77	10^3 Gallons Burned	
2-01-001-02	Reciprocating	32.1	10^3 Gallons Burned	
Natural Gas				
2-01-002-01	Turbine	12.6	10^6 Cubic Feet Burned	
2-01-002-02	Reciprocating	82.9	10^6 Cubic Feet Burned	
Kerosene/Naphtha (Jet Fuel)[c]				
2-01-009-01	Turbine	4.77	10^3 Gallons Burned	
2-01-009-02	Reciprocating	32.1	10^3 Gallons Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Geysers/Geothermal				
2-01-010-01	- Steam Engine		Tons Steam Produced	
INTERNAL COMBUSTION - INDUSTRIAL				
Distillate Oil (Diesel)				
2-02-001-01	- Turbine	4.77	10^3 Gallons Burned	
2-02-001-02	- Reciprocating	32.1	10^3 Gallons Burned	
2-02-001-03	- Turbine: Cogeneration	4.77	10^3 Gallons Burned	
2-02-001-04	- Engine: Cogeneration	32.1	10^3 Gallons Burned	
Natural Gas				
2-02-002-01	- Turbine	6.9	10^6 Cubic Feet Burned	
2-02-002-02	- Reciprocating	82.9	10^6 Cubic Feet Burned	
2-02-002-03	- Turbine: Cogeneration	12.6	10^6 Cubic Feet Burned	
2-02-002-04	- Engine: Cogeneration	82.9	10^6 Cubic Feet Burned	
Gasoline				
2-02-003-01	- Reciprocating	147.7[c]	10^3 Gallons Burned	
Large Bore Engine				
2-02-004-01	- Diesel	13.0	10^3 Gallons Burned	
2-02-004-02	- Dual Fuel (Oil/Gas)	1.5	10^3 Horsepower-Hours	
2-02-004-03	- Dual Fuel (Cogeneration)[d]	1.32	10^5 Brake HP-Hours	
Residual/Crude Oil[c]				
2-02-005-01	- Reciprocating	32.1	10^3 Gallons Burned	
Kerosene/Naphtha (Jet Fuel)[c]				
2-02-009-01	- Turbine	4.77	10^3 Gallons Burned	
2-02-009-02	- Reciprocating	32.1	10^3 Gallons Burned	
Liquified Petroleum Gas (LPG)[d]				
2-02-010-01	- Propane: Reciprocating	83.0	10^3 Gallons Burned	
2-02-010-02	- Butane: Reciprocating	83.0	10^3 Gallons Burned	
INTERNAL COMBUSTION - COMMERCIAL/INSTITUTIONAL				
Distillate Oil (Diesel)				
2-03-001-01	- Reciprocating	32.1	10^3 Gallons Burned	
2-03-001-02	- Turbine	4.77	10^3 Gallons Burned	
Natural Gas				
2-03-002-01	- Reciprocating	82.9	10^6 Cubic Feet Burned	
2-03-002-02	- Turbine	12.6	10^6 Cubic Feet Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Gasoline				
2-03-003-01	- Reciprocating	147.7	10^3 Gallons Burned	
Liquified Petroleum Gas (LPG)[d]				
2-03-010-01	- Propane: Reciprocating	83.0	10^3 Gallons Burned	
2-03-010-02	- Butane: Reciprocating	83.0	10^3 Gallons Burned	
INTERNAL COMBUSTION - ENGINE TESTING				
Aircraft				
2-04-001-01	- Turbojet	46.0	10^3 Gallons Fuel	
2-04-001-02	- Turboshaft	46.0	10^3 Gallons Fuel	
Turbine[c]				
2-04-003-01	- Natural Gas	6.9	10^6 Cubic Feet Burned	
2-04-003-02	- Diesel/Kerosene	4.77	10^3 Gallons Burned	
Reciprocating[c]				
2-04-004-01	- Gasoline	148.0	10^3 Gallons Burned	
2-04-004-02	- Diesel/Kerosene	32.1	10^3 Gallons Burned	
INTERNAL COMBUSTION - FUGITIVE EMISSIONS[F]				
Other Not Classified				
2-88-888-01	- Specify in Comments		10^3 Gallons Burned	
2-88-888-02	- Specify in Comments		10^6 Cubic Feet Burned	
2-88-888-03	- Specify in Comments		10^3 Horsepower-Hours	
CHEMICAL MANUFACTURING - MAJOR GROUP 28				
Adipic Acid - 2869				
3-01-001-01	- General	42.7	Tons of Product	
3-01-001-02	- Raw Material Storage	2.2	Tons of Product	
3-01-001-03	- Cyclohexane Oxidation	40.0	Tons of Product	
3-01-001-04	- Nitric Acid Reaction	0.0	Tons of Product	
3-01-001-05	- Adipic Acid Refining	0.5	Tons of Product	
3-01-001-06	- Adipic Acid Drying/Loading & Storage	0.0	Tons of Product	
3-01-001-07	- Absorber		Tons Product	
3-01-001-08	- Dryer		Tons Product	
3-01-001-09	- Cooler		Tons Product	
3-01-001-80	- Fugitive Emissions: General*	62,000	Lbs/Year	1,2

*Note that fugitive emissions are reported in units of pounds/year rather than lbs/ton product as in the NEDS Source Classification Codes and Emission Factor Listing dated October 1985.

SCC	Process	VOC Lbs/Unit	Units	Notes
Ammonia Production - 2873				
3-01-003-05	- Feedstock Desulfurization	7.2	Tons Produced	
3-01-003-06	- Primary Reformer: Natural Gas Fired	0.012	Tons Produced	
3-01-003-07	- Primary Reformer: Oil Fired	0.38	Tons Produced	
3-01-003-08	- Carbon Dioxide Regenerator	1.04	Tons Produced	
3-01-003-09	- Condensate Stripper	1.2	Tons Produced	
Carbon Black Production - 2895				
3-01-005-01	- Channel Process[g]	8943.0	Tons Produced	
3-01-005-02	- Thermal Process	0.0	Tons Produced	
3-01-005-03	- Gas Furnace Process[h] (Main Process Vent)	1400.0	Tons Produced	
3-01-005-04	- Oil Furnace Process (Main Process Vent)	100.0	Tons Produced	
3-01-005-06	- Transport Air Vent	0.0	Tons Produced	
3-01-005-07	- Pellet Dryer		Tons Produced	
3-01-005-08	- Bagging/Loading	0.0	Tons Produced	
3-01-005-09	- Furnace Process Fugitive Emissions	0.0	Tons Produced	
Charcoal Manufacture - 2861				
3-01-006-01	- General	314.0	Tons Produced	
3-01-006-03	- Batch Kiln	314.0	Tons Produced	
3-01-006-04	- Continuous Furnace	314.0	Tons Produced	
3-01-006-05	- Briquetting	0.0	Tons Produced	
3-01-006-99	- Other Not Classified (Specify in Comments)		Tons Product	
Chloro-Alkali Production - 2812				
3-01-008-01	- Liquefaction (Diaphram Cell Process)		100 Tons Chlorine Liquified	
3-01-008-02	- Liquefaction (Mercury Cell Process)		100 Tons Chlorine Liquified	
3-01-008-03	- Chlorine Loading: Tank Car Vents	0.0	100 Tons Chlorine Liquified	
3-01-008-04	- Chlorine Loading: Storage Tank Vents	0.0	100 Tons Chlorine Liquified	
3-01-008-05	- Air Blowing of Mercury Cell Brine	0.0	100 Tons Chlorine Liquified	
Cleaning Chemicals - 2841, 2842				
3-01-009-01	- Spray Drying: Soaps & Detergents	0.06	Tons Produced	3
3-01-009-02	- Speciality Cleaners	2000	Tons Product	
3-01-009-99	- Other Not Classified (Specify in Comments)		Tons Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Explosives - Trinitrotoluene - 2892				
3-01-010-11	Batch Process: Nitration Reactors Fume Recovery		Tons Produced	
3-01-010-12	Batch Process: Nitration Reactors Acid Recovery		Tons Produced	
3-01-010-13	Batch Process: Nitric Acid Concentrators		Tons Produced	
3-01-010-14	Batch Process: Sulfuric Acid Concentrators - Electrostatic Precipitators (Exit)		Tons Produced	
3-01-010-15	Batch Process: Red Water Incinerator		Tons Produced	
3-01-010-21	Continuous Process: Nitration Reactors - (Fume Recovery)		Tons Produced	
3-01-010-22	Continuous Process: Nitration Reactors - (Acid Recovery)		Tons Produced	
3-01-010-23	Continuous Process: Red Water Incinerator		Tons Produced	
3-01-010-30	Open Burning: Waste	1.1	Tons TNT Burned	
Hydrochloric Acid - 2819				
3-01-011-01	By-Product Process		Tons Final Acid	
3-01-011-98	Handling & Storage (99.9% Removal)		10^3 Gallons Acid	
Hydrofluoric Acid - 2819				
3-01-012-02	Rotary Kiln (Acid Reactor)		Tons Acid Produced	
3-01-012-03	Fluorspar Grinding/Drying		Tons Fluorspar	
3-01-012-04	Fluorspar Handling Silos	0.0	Tons Fluorspar	
3-01-012-05	Fluorspar Transfer	0.0	Tons Fluorspar	
3-01-012-06	Tail Gas Vent		Tons Acid Produced	
Nitric Acid - 2873				
3-01-013-01	Absorber Tail Gas (Pre-1970 Facilities)	0.0	Tons Pure Acid Produced	4
3-01-013-02	Absorber Tail Gas (Post-1970 Facilities)	0.0	Tons Pure Acid Produced	4
3-01-013-03	Nitric Acid Concentration (Pre-1970 Facilities)	0.0	Tons Pure Acid Produced	4
3-01-013-04	Nitric Acid Concentration (Post-1970 Facilities)	0.0	Tons Pure Acid Produced	4
Paint Manufacture - 2851[i]				
3-01-014-01	General Mixing & Handling	30.0	Tons Paint Produced	
3-01-014-02	Pigment Handling	0.0	Tons Pigment Processed	
3-01-014-99	Other Not Classified		Tons Product	

SCC	Process	VOC Lbs/Unit	Units	Notes
Varnish Manufacture - 2851				
3-01-015-01	- Bodying Oil	40.0	Tons Produced	
3-01-015-02	- Oleoresinous	150.0	Tons Produced	
3-01-015-03	- Alkyd	160.0	Tons Produced	
3-01-015-05	- Acrylic	20.0	Tons Produced	
3-01-015-99	- Other Not Classified (Specify in Comments)		Tons Produced	
Phosphoric Acid: Wet Process - 2874				
3-01-016-01	- Reactor		Tons Phosphate Rock	
3-01-016-02	- Gypsum Pond		Tons Phosphate Rock	
3-01-016-03	- Condensor		Tons Phosphate Rock	
Phosphoric Acid: Thermal Process - 2874				
3-01-017-02	- Absorber: General		Tons Phosphorous Burned	
3-01-017-03	- Absorber w/Packed Tower		Tons P_2O_5 Produced	
3-01-017-04	- Absorber w/Venturi Scrubber		Tons P_2O_5 Produced	
3-01-017-05	- Absorber w/Glass Mist Eliminator		Tons P_2O_5 Produced	
3-01-017-06	- Absorber w/Wire Mist Eliminator		Tons P_2O_5 Produced	
3-01-017-07	- Absorber w/High-pressure Mist Eliminator		Tons P_2O_5 Produced	
3-01-017-08	- Absorber w/Electrostatic Precipitator		Tons P_2O_5 Produced	
Plastics Production - Specific Products - 2821[j]				
3-01-018-01	- Polyvinyl Chlorides & Copolymers	17.0	Tons Product	
3-01-018-02	- Polypropylene and Copolymers	0.7	Tons Product	
3-01-018-03	- Ethylene-Propylene Copolymers		Tons Product	
3-01-018-05	- Phenolic Resins	14.6	Tons Product	85
3-01-018-07	- Polyethylene (High Density)	26.4	Tons Product	6
3-01-018-08	- Monomer & Solvent Recovery		Tons Product	
3-01-018-09	- Extruder	11.0	Tons Product	5
3-01-018-10	- Conveying		Tons Product	
3-01-018-11	- Storage		Tons Product	
3-01-018-12	- Polyethylene (Low Density)	7.7	Tons Product	86
3-01-018-13	- Recovery & Purification System	60.0	Tons Product	5
3-01-018-14	- Extruder	60.0	Tons Product	5
3-01-018-15	- Pellet Silo	0.0	Tons Product	5
3-01-018-16	- Transfer/Handling/Loading/Packing	0.0	Tons Product	5
3-01-018-17	- Polystyrene	11.1	Tons Product	87
3-01-018-18	- Reactor	0.1	Tons Product	6
3-01-018-19	- Solvent Recovery		Tons Product	

SCC	Process	VOC Lbs/Unit	Units	Notes
Plastics Production - Specific Products - 2821 (Continued)[j]				
3-01-018-20	- Polymer Drying		Tons Product	
3-01-018-21	- Extruding/Pelletizing/Conveying/ Storage	0.45	Tons Product	6
3-01-018-22	- Acrylic Resins	1.17	Tons Product	88
3-01-018-27	- Polyamide Resins	1.55	Tons Product	89
3-01-018-32	- Urea-Formaldehyde Resins	20.0	Tons Product	3
3-01-018-37	- Polyester Resins: General	0.46	Tons Product	90
3-01-018-38	- Polyester/Alkyd Resins: Reactor Kettle	4.77	Tons Resin Produced	91
3-01-018-39	- Polyester/Alkyd Resins: Resin Thinning Tank	6.7	Tons Thinning Solvent Used	92
3-01-018-40	- Polyester/Alkyd Resins: Resin Storage Tank	11.1	10^3 Gallons Thinned Resin Stored	93
3-01-018-42	- Melamine Resins	50.0	Tons Product	5
3-01-018-47	- Epoxy Resins	6.8	Tons Product	7
3-01-018-52	- Polyfluorocarbons		Tons Product	
Polyethylene - 2821[j]				
3-01-018-60	- Recovery System	0.055	Tons Product	6
3-01-018-61	- Purification System	0.02	Tons Product	6
3-01-018-63	- Extruder	0.06	Tons Product	6
3-01-018-64	- Pellet Silo/Storage	0.03	Tons Product	6
3-01-018-65	- Transfer/Conveying		Tons Product	
3-01-018-66	- Packing/Shipping		Tons Product	
Plastics Production - General Processes - 2821[j]				
3-01-018-90	- Catalyst Preparation	0.47	Tons Product	94
3-01-018-91	- Reactor Vents	0.4	Tons Product	95
3-01-018-92	- Separation Processes		Tons Product	
3-01-018-93	- Raw Material Storage	0.034	Tons Raw Material	96
3-01-018-94	- Solvent Storage	0.018	Tons Solvent	97
3-01-018-99	- Other Not Classified (Specify in Comments)		Tons Product	
Phthalic Anhydride - 2865				
3-01-019-01	- o-Xylene Oxidation: Main Process Stream (Reactor Condensers)	0.0	Tons Produced	
3-01-019-02	- o-Xylene Oxidation: Pre-treatment	0.0	Tons Produced	
3-01-019-04	- o-Xylene Oxidation: Distillation	2.4	Tons Produced	
3-01-019-05	- Naphthalene Oxidation: Main Process Stream (Reactor/Condensers)	0.0	Tons Produced	
3-01-019-06	- Naphthalene Oxidation: Pre-treatment	0.0	Tons Produced	
3-01-019-07	- Naphthalene Oxidation: Distillation	10.0	Tons Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Printing Ink Manufacture - 2893				
3-01-020-01	- Vehicle Cooking: General	120.0	Tons Produced	
3-01-020-02	- Vehicle Cooking: Oils	40.0	Tons Produced	
3-01-020-03	- Vehicle Cooking: Oleoresin	150.0	Tons Produced	
3-01-020-04	- Vehicle Cooking: Alkyds	160.0	Tons Produced	
3-01-020-05	- Pigment Mixing	6.2	Tons Pigment	3
Sodium Carbonate - 2812				
3-01-021-01	- Solvay Process: NH_3 Recovery	0.0	Tons Produced	8
3-01-021-02	- Solvay: Handling	0.0	Tons Produced	8
3-01-021-03	- Trona Crushing/Screening	0.0	Tons Ore Processed	8
3-01-021-04	- Calciner: Gas-Fired	0.0	Tons Ore Processed	8
3-01-021-05	- Calciner: Coal-Fired	0.0	Tons Ore Processed	8
3-01-021-06	- Rotary Dryer	0.0	Tons Product	8
3-01-021-07	- Fluid Bed Dryer	0.0	Tons Product	8
3-01-021-08	- Dissolver	0.0	Tons Product	8
3-01-021-12	- Rotary Predryer	0.0	Tons Dry $NaHCO_3$ Feed	8
3-01-021-13	- Bleacher: Gas-Fired	0.0	Tons Dry Feed	8
3-01-021-99	- Other Not Classified (Specify in Comments)		Tons Produced	
Sulfuric Acid, Chamber Process - 2819				
3-01-022-01	- General	0.0	Tons of Pure Acid Produced	
Sulfuric Acid - Contact Process - 2819				
3-01-023-01	- Absorber/@ 99.9% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-04	- Absorber/@ 99.5% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-06	- Absorber/@ 99.0% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-08	- Absorber/@ 98.0% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-10	- Absorber/@ 97.0% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-12	- Absorber/@ 96.0% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-14	- Absorber/@ 95.0% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-16	- Absorber/@ 94.0% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-18	- Absorber/@ 93.0% Conversion	0.0	Tons 100% H_2SO_4	9
3-01-023-19	- Concentrator	0.0	Tons 100% H_2SO_4	9
3-01-023-20	- Tank Car and Truck Unloading	0.0	Tons 100% H_2SO_4 Loaded	9
3-01-023-21	- Storage Tank Vents	0.0	Tons 100% H_2SO_4 Stored	9
3-01-023-22	- Leaks in Process Equipment	0.0	Tons 100% H_2SO_4	9

SCC	Process	VOC Lbs/Unit	Units	Notes
Synthetic Organic Fiber Production - Specific Products - 2824				
3-01-024-01	Polyamide (e.g., Nylon)	7.0	Tons Fiber	
3-01-024-02	Polyesters (e.g., Dacron)		Tons Fiber	
3-01-024-05	Polyfluorocarbons (e.g., Teflon)		Tons Product	
3-01-024-10	Acrylics (e.g., Orlon)		Tons Product	
3-01-024-14	Polyolefins (e.g., Polypropylene)	73.0	Tons Product	10
3-01-024-15	Vinyls (e.g., Saran)		Tons Product	
3-01-024-16	Aramid		Tons Product	
Synthetic Organic Fiber Production - General Processes - 2824				
3-01-024-21	Dope Preparation		Tons Product	
3-01-024-22	Filtration		Tons Product	
3-01-024-23	Fiber Extrusion		Tons Product	
3-01-024-24	Washing/Drying/Finishing		Tons Product	
3-01-024-25	Fiber Storage		Tons Product	
3-01-024-26	Equipment Cleanup		Tons Product	
3-01-024-27	Solvent Storage		Tons Solvent	
Cellulosic Fiber Production - 2823				
3-01-025-01	Viscose (e.g., Rayon)	0.0	Tons Fiber	
3-01-025-05	Acetate		Tons Produced	
Synthetic Rubber Production (Manufacturing Only) - 2822				
3-01-026-01	General	83.0	Tons Product	
3-01-026-02	Butyl (Isobutylene)		Tons Product	
3-01-026-08	Acrylonitrile		Tons Product	
3-01-026-09	Dryers	5.0	Tons Product	
3-01-026-10	Blowdown Tank		Tons Product	
3-01-026-11	Steam Stripper		Tons Product	
3-01-026-12	Prestorage Tank		Tons Product	
3-01-026-13	Monomer Recovery (Absorber Vent)	0.52	Tons Product	
3-01-026-14	Blending Tanks	0.84	Tons Product	
3-01-026-15	Isoprene		Tons Product	
3-01-026-16	Latex: Monomer Removal	17.0	Tons Product	
3-01-026-17	Latex: Blending Tank	0.2	Tons Product	
3-01-026-25	Chloroprene		Tons Product	
3-01-026-30	Silicone Rubber		Tons Product	
3-01-026-99	Other Not Classified (Specify in Comments)		Tons Product	

SCC	Process	VOC Lbs/Unit	Units	Notes
Ammonium Nitrate Production - 2873				
3-01-027-04	Neutralizer	0.0	Tons Produced	11
3-01-027-07	Rotary Drum Granulator	0.0	Tons Produced	11
3-01-027-08	Pan Granulator	0.0	Tons Produced	11
3-01-027-09	Bulk Loading (General)	0.0	Tons Produced	11
3-01-027-10	Bagging Product	0.0	Tons Produced	11
3-01-027-11	Neutralizer (High Density)	0.0	Tons Produced	11
3-01-027-12	Prilling Tower (High Density)	0.0	Tons Produced	11
3-01-027-14	Prill Coolers (High Density)	0.0	Tons Produced	11
3-01-027-17	Evaporator/Concentrator (High Density)	0.0	Tons Produced	11
3-01-027-18	Coating (High Density)	0.0	Tons Produced	11
3-01-027-20	Solids Screening	0.0	Tons Produced	11
3-01-027-21	Neutralizer (Low Density)	0.0	Tons Produced	11
3-01-027-22	Prilling Towers (Low Density)	0.0	Tons Produced	11
3-01-027-24	Prill Coolers (Low Density)	0.0	Tons Produced	11
3-01-027-25	Prill Dryer (Low Density)	0.0	Tons Produced	11
3-01-027-27	Evaporator/Concentrator (Low Density)	0.0	Tons Produced	11
3-01-027-28	Coating (Low Density)	0.0	Tons Produced	11
3-01-027-29	Rotary Drum Granulator Coolers	0.0	Tons Produced	11
3-01-027-30	Pan Granulator Cooler	0.0	Tons Produced	11
Normal Superphosphate - 2874				
3-01-028-01	Grinding & Drying	0.0	Tons Produced	
3-01-028-03	Rock Unloading	0.0	Tons P_2O_5 Produced	
3-01-028-04	Rock Feeder System	0.0	Tons P_2O_5 Produced	
3-01-028-05	Mixer/Den	0.0	Tons P_2O_5 Produced	
3-01-028-06	Curing Building	0.0	Tons P_2O_5 Produced	
3-01-028-07	Bagging/Handling	0.0	Tons P_2O_5 Produced	
3-01-028-20	Mixing	0.0	Tons Fertilizer Produced	
3-01-028-21	Den		Tons Fertilizer Produced	
3-01-028-22	Curing		Tons Fertilizer Produced	
3-01-028-23	Ammoniator/Granulator		Tons Fertilizer Granulated	
3-01-028-24	Dryer		Tons Fertilizer Granulated	
3-01-028-25	Cooler		Tons Fertilizer Granulated	
Triple Superphosphate (Also Called Double or Concentrated Superphosphate) - 2874				
3-01-029-03	Rock Unloading	0.0	Tons P_2O_5 Produced	
3-01-029-04	Rock Feeder System	0.0	Tons P_2O_5 Produced	
3-01-029-05	Run-of-Pile: Mixer/Den/Curing	0.0	Tons P_2O_5 Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Triple Superphosphate (Also Called Double or Concentrated Superphosphate) - 2874 (Continued)				
3-01-029-06	Granular: Reactor/Dryer		Tons P_2O_5 Produced	
3-01-029-07	Granular: Curing	0.0	Tons P_2O_5 Produced	
3-01-029-08	Bagging/Handling	0.0	Tons P_2O_5 Produced	
3-01-029-20	Mixing		Tons Fertilizer Produced	
3-01-029-21	Den		Tons Fertilizer Produced	
3-01-029-22	Curing		Tons Fertilizer Produced	
3-01-029-23	Ammoniator/Granulator		Tons Fertilizer Granulated	
3-01-029-24	Dryer		Tons Fertilizer Granulated	
3-01-029-25	Cooler		Tons Fertilizer Granulated	
Ammonium Phosphates - 2874				
3-01-030-01	Dryers & Coolers		Tons P_2O_5 Produced	
3-01-030-02	Ammoniator/Granulator		Tons P_2O_5 Produced	
3-01-030-03	Screening/Transfer	0.0	Tons P_2O_5 Produced	
3-01-030-04	Bagging/Handling	0.0	Tons P_2O_5 Produced	
3-01-030-20	Mixing		Tons Fertilizer Produced	
3-01-030-21	Den		Tons Fertilizer Produced	
3-01-030-22	Curing		Tons Fertilizer Produced	
3-01-030-23	Ammoniator/Granulator		Tons Fertilizer Produced	
3-01-030-24	Dryer		Tons P_2O_5 Produced	
3-01-030-25	Cooler		Tons P_2O_5 Produced	
Terephthalic Acid/Dimethyl Terephthalate - 2869				
3-01-031-01	HNO_3 - Paraxylene - General	39.6	Tons Produced	
3-01-031-02	Reactor Vent	30.0	Tons Produced	
3-01-031-03	Crystallization, Separation & Drying Vent	3.8	Tons Produced	
3-01-031-04	Distillation & Recovery Vent	2.2	Tons Produced	
3-01-031-05	Product Transfer Vent	3.6	Tons Produced	
3-01-031-99	Other Not Classified (Specify in Comments)		Tons Produced	
Elemental Sulfur Production - 2819[1]				
3-01-032-01	Modified Clause: 2 Stage w/o Control (92-95% Removal)		Tons 100% Sulfur	
3-01-032-02	Modified Clause: 3 Stage w/o Control (95-96% Removal)	1.9	Tons 100% Sulfur	12
3-01-032-03	Modified Clause: 4 Stage w/o Control (96-97% Removal)		Tons 100% Sulfur	
3-01-032-04	Sulfur Removal Process (99.9% Removal)		Tons 100% Sulfur	

SCC	Process	VOC Lbs/Unit	Units	Notes
Pesticides - 2879				
3-01-033-01 -	Malathion	0.05	Gallons of Product	7
3-01-033-99 -	Other Not Classified (Specify in Comments)		Tons Produced	
Amines/Amides Production - 2869				
Aniline - 2869				
3-01-034-02 -	General		Tons Produced	
3-01-034-03 -	Reactor Recycle Purge Vent	0.23	Tons Product	13
3-01-034-04 -	Dehydration Column Vent	0.0	Tons Product	13
3-01-034-05 -	Purification Column Vent		Tons Product	
3-01-034-06 -	Fugitive Emissions: General*		Lbs/Year	
Ethanolamines - 2869				
3-01-034-10 -	General		Tons Produced	
3-01-034-11 -	Ammonia Scrubber Vent	0.0	Tons Product	13
3-01-034-12 -	Vacuum Distillation - Jet Vent	0.0	Tons Product	13
3-01-034-14 -	Fugitive Emissions: General*		Lbs/Year	
3-01-034-15 -	Ethylenediamine		Tons Produced	
3-01-034-20 -	Hexamethylenediamine		Tons Produced	
3-01-034-25 -	Hexamethylenetetramine		Tons Produced	
3-01-034-30 -	Melamine		Tons Produced	
3-01-034-35 -	Methylamines		Tons Produced	
3-01-034-99 -	Other Not Classified (Specify in Comments)		Tons Produced	
Inorganic Pigments - 2816				
3-01-035-01 -	TiO_2 Sulfate Process: Calciner[d]		Tons Produced	
3-01-035-02 -	TiO_2 Sulfate Process: Digestor[d]		Tons Produced	
3-01-035-03 -	TiO_2 Chloride Process: Reactor[d]		Tons Produced	
3-01-035-06 -	Lead Oxide: Barton Pot		Tons Produced	
3-01-035-07 -	Lead Oxide: Calcining Furnace		Tons Produced	
3-01-035-10 -	Red Lead		Tons Produced	
3-01-035-15 -	White Lead		Tons Produced	
3-01-035-20 -	Lead Chromate		Tons Produced	
3-01-035-50 -	Ore Grinding	0.0	Tons Produced	
3-01-035-51 -	Ore Dryer	0.0	Tons Produced	
3-01-035-52 -	Pigment Milling	0.0	Tons Produced	
3-01-035-53 -	Pigment Dryer	0.0	Tons Produced	
3-01-035-54 -	Conveying/Storage/Packing	0.0	Tons Produced	
3-01-035-99 -	Other Not Classified (Specify in Comments)		Tons Produced	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Sodium Bicarbonate - 2812				
3-01-038-01	General		Tons Product	
Hydrogen Cyanide - 2819				
3-01-039-01	General	14.0	Tons Product	14
3-01-039-02	Ammonia Absorber		Tons Product	
3-01-039-03	HCN Absorber		Tons Product	
Urea Production - 2873				
3-01-040-01	General: Specify in Comments		Tons Product	
3-01-040-02	Solution Concentration (Controlled)	0.0	Tons Produced	15
3-01-040-03	Prilling	0.0	Tons Produced	15
3-01-040-04	Drum Granulation	0.009	Tons Produced	15
3-01-040-05	Solid Product: Coating	0.0	Tons Produced	15
3-01-040-06	Solid Product: Bagging	0.0	Tons Produced	15
3-01-040-07	Bulk Loading	0.0	Tons Produced	15
3-01-040-08	Non-Fluidized Bed Prilling (Agricultural Grade)	0.0	Tons Produced	15
3-01-040-09	Non-Fluidized Bed Prilling (Feed Grade)	0.0	Tons Produced	15
3-01-040-10	Fluidized Bed Prilling (Agricultural Grade)	0.019	Tons Produced	15
3-01-040-11	Fluidized Bed Prilling (Feed Grade)	0.04	Tons Produced	15
3-01-040-12	Rotary Drum Cooler	0.0	Tons Produced	15
3-01-040-13	Solids Screening	0.0	Tons Produced	15
Nitrocellulose - 2892				
3-01-041-01	Nitration Reactors	0.0	Tons Produced	
3-01-041-02	Sulfuric Acid Concentrator	0.0	Tons Produced	
3-01-041-03	Boiling Tubs	0.0	Tons Produced	
3-01-041-04	Nitric Acid Concentrator	0.0	Tons Produced	
Lead Alkyl Manufacture - (Sodium/Lead Alloy Process) - 2869				
3-01-042-01	Recovery Furnace		Tons Produced	
3-01-042-02	Process Vents (Tetraethyl Lead)		Tons Produced	
3-01-042-03	Process Vents (Tetramethyl Lead)		Tons Produced	
3-01-042-04	Sludge Pits		Tons Produced	
Lead Alkyl Manufacture - (Electrolytic Process) - 2869				
3-01-043-01	General		Tons Produced	
Organic Fertilizer - 2873				
3-01-045-01	General: Mixing/Handling		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Pharmaceutical Preparations - 2834				
3-01-060-01	Vacuum Dryers	0.47	Hundreds of Lbs. of Product	77
3-01-060-02	Reactors	0.0	Hundreds of Lbs. of Product	3
3-01-060-03	Distillation Units	11.8	Hundreds of Lbs. of Product	78
3-01-060-04	Filters	0.091	Hundreds of Lbs. of Product	79
3-01-060-05	Extractors	0.0061	Hundreds of Lbs. of Product	80
3-01-060-06	Centrifuges		Hundreds of Lbs. of Product	
3-01-060-07	Crystallizers	0.0	Hundreds of Lbs. of Product	3
3-01-060-08	Exhaust Systems		Hundreds of Lbs. of Product	
3-01-060-09	Air Dryers		Hundreds of Lbs. of Product	
3-01-060-10	Storage/Transfer	0.070	Hundreds of Lbs. of Product	81
3-01-060-99	Other Not Classified (Specify in Comments)		Hundreds of Lbs. of Product	
Industrial Inorganic Chemical Production - General Processes - 2812-2819				
3-01-070-01	Fugitive Leaks	0.0	Tons Product	3
3-01-070-02	Storage/Transfer	1.0	Tons Product	7
Ketone Production - 2869				
3-01-091-05	Methyl Ethyl Ketone (MEK)	0.0	Tons Produced	13
3-01-091-10	Methyl Isobutyl Ketone (MIBK)		Tons Produced	
Acetone - 2869				
3-01-091-01	Acetone: General		Tons Produced	
3-01-091-51	Cumene Oxidation	0.0	Tons Product	13
3-01-091-52	CHP Concentrator	0.0	Tons Product	13
3-01-091-53	Light-ends Distillation Vent	0.0	Tons Product	13
3-01-091-54	Acetone Finishing Column	0.0	Tons Product	13
3-01-091-80	Fugitive Emissions: General*	450,000	Lbs/Year	1,2
Ketone Production - 2869				
3-01-091-99	Other Not Classified (Specify in Comments)		Tons Produced	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Maleic Anhydride - 2865				
3-01-100-02	Product Recovery Absorber	174.0	Tons Produced	
3-01-100-03	Vacuum System Vent	0.0	Tons Produced	16
3-01-100-04	Briquetting	0.0	Tons Produced	16
3-01-100-05	Secondary Sources (Dehydration Column, Vacuum System, Fractionation Column)		Tons Produced	
3-01-100-99	Other Not Classified (Specify in Comments)		Tons Produced	
Aldehydes Production - 2869				
Formaldehyde - 2869				
3-01-120-01	Formaldehyde: Silver Catalyst	13.0	Tons Produced	14
3-01-120-02	Formaldehyde: Mixed Oxide Catalyst	16.0	Tons Produced	14
3-01-120-05	Absorber Vent	2.2	Tons Product	16
3-01-120-06	Fractionator Vent	0.13	Tons Product	16
3-01-120-07	Fugitive Emissions: General*	36,000	Lbs/Year	1,2
Acetaldehyde - 2869				
3-01-120-11	Acetaldehyde from Ethylene	2.8	Tons Produced	14
3-01-120-12	Acetaldehyde from Ethanol	0.04	Tons Produced	14
3-01-120-13	Off-Air Absorber Vent	4.5	Tons Product	17
3-01-120-14	Off-Gas Absorber Vent	5.6	Tons Product	17
3-01-120-17	Fugitive Emissions: General*	165,000	Lbs/Year	1,2
Butyraldehyde - 2869				
3-01-120-21	General	240.0	Tons Produced	13
Acrolein - 2869				
3-01-120-31	CO_2 Stripping Tower	120.0	Tons Product	18
3-01-120-32	Aqueous Acrolein Receiver	6.0	Tons Product	18
3-01-120-33	Distillation System	54.0	Tons Product	18
3-01-120-34	Refrigeration Unit		Tons Product	
3-01-120-37	Fugitive Emissions: General*		Lbs/Year	
3-01-120-99	Other Not Classified (Specify in Comments)		Tons Product	
Organic Dyes/Pigments - 2865				
3-01-121-99	Other Not Classified (Specify in Comments)		Tons Produced	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Chloroprene - 2869				
3-01-124-01	General		Tons Product	
3-01-124-02	Butadiene Dryer	2.4	Tons Product	19
3-01-124-03	Chlorination Reactor	0.47	Tons Product	19
3-01-124-04	Dichlorobutene Still	7.8	Tons Product	19
3-01-124-05	Isomerization & 3,4 DCB Recovery Vent	0.29	Tons Product	19
3-01-124-06	Chloroprene Stripper	0.31	Tons Product	19
3-01-124-07	Brine Stripper	0.31	Tons Product	19
3-01-124-80	Fugitive Emissions: General*		Lbs/Year	
Organohalogens Production - 2869				
Ethylene Dichloride - 2869				
3-01-125-01	Ethylene Dichloride via Oxychlorination	24.1	Tons Produced	83
3-01-125-02	Ethylene Dichloride via Direct Chlorination	1.33	Tons Produced	83
3-01-125-04	Caustic Scrubber	0.0	Tons Product	13
3-01-125-05	Reactor Vessel	0.0	Tons Product	13
3-01-125-06	Distillation Unit	0.0	Tons Product	13
3-01-125-09	Fugitive Emissions: General*	180,000	Lbs/Year	1,2
Chloromethanes - 2869				
3-01-125-10	General	30.0	Tons Produced	13
3-01-125-11	Recycled Methane Inert-Purge	0.0	Tons Product	13
3-01-125-12	Drying Bed Regeneration Vent	0.0	Tons Product	13
3-01-125-14	Fugitive Emissions: General*		Lbs/Year	
Ethyl Chloride - 2869				
3-01-125-15	Ethyl Chloride: General	0.0	Tons Produced	
Perchloroethylene - 2869				
3-01-125-20	General	3.5	Tons Produced	20
3-01-125-21	Distillation Vent	0.09	Tons Product	20
3-01-125-22	Caustic Scrubber	0.005	Tons Product	20
3-01-125-24	Fugitive Emissions: General*	730,000	Lbs/Year	1,2

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SCC	Process	VOC Lbs/Unit	Units	Notes
1,1,1-Trichloroethane (Methyl Chloroform) - 2869				
3-01-125-25	General		Tons Produced	
3-01-125-26	HCL Absorber Vent		Tons Product	
3-01-125-27	Drying Column Vent		Tons Product	
3-01-125-28	Distillation Column Vent		Tons Product	
3-01-125-29	Fugitive Emissions: General*	77,000	Lbs/Year	1,2
Trichloroethylene - 2869				
3-01-125-30	General	1.3	Tons Produced	21
3-01-125-31	Distillation Unit	0.03	Tons Product	21
3-01-125-32	Neutralizer		Tons Product	
3-01-125-33	Product Recovery Column		Tons Product	
3-01-125-34	Fugitive Emissions: General*	730,000	Lbs/Year	1,2
Chlorobenzene - 2869^{m}				
3-01-125-35	General	0.8	Tons Produced	13
Vinyl Chloride - 2869				
3-01-125-40	General	6.5	Tons Produced	22
3-01-125-41	Cracking Furnace	0.0	Tons Product	22
3-01-125-42	HCL Recovery	0.2	Tons Product	22
3-01-125-43	Light-ends Recovery Vent	2.0	Tons Product	22
3-01-125-44	Drying Column/Dichloroethane		Tons Product	
3-01-125-45	Drying Column/Vinyl Chloride Monomer	2.0	Tons Product	22
3-01-125-46	Product Recovery Still		Tons Product	
3-01-125-47	Cracking Furnace Decoking		Tons Product	
3-01-125-50	Fugitive Emissions: General*	275,000	Lbs/Year	1,2
Vinylidene Chloride - 2869				
3-01-125-51	General	9.6	Tons Product	13
3-01-125-52	Dehydrochlorination Reactor Purge Vent	0.0	Tons Product	13
3-01-125-53	Distillation Column Vents	0.97	Tons Product	13
3-01-125-55	Fugitive Emissions: General*		Lbs/Year	
Chlorinated Organics - Other Not Classified - 2869				
3-01-125-99	Chlorine Organics: Specify in Comments		Tons Produced	
Brominated Organics - 2869				
3-01-126-99	Bromine Organics		Tons Produced	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Fluorocarbons/Chlorofluorocarbons - 2869				
3-01-127-01	General	0.0	Tons Produced	13
3-01-127-02	Distillation Column	0.0	Tons Product	13
3-01-127-03	HCL Recovery Column	0.0	Tons Product	13
3-01-127-80	Fugitive Emissions: General*		Lbs/Year	
Ammonium Sulfate - 2873				
3-01-130-04	Rotary Dryer	1.48	Tons Produced	
3-01-130-05	Fluid Bed Dryer	1.48	Tons Produced	
Organic Acids Production - 2869				
Acetic Acid - 2869				
3-01-132-01	Acetic Acid via Methanol		Tons Produced	
3-01-132-05	Acetic Acid via Butane	14	Tons Produced	14
3-01-132-10	Acetic Acid via Acetaldehyde	22	Tons Produced	14
Acrylic Acid - 2869				
3-01-132-21	General	240	Tons Product	14
3-01-132-22	Quench Absorber	239	Tons Product	23
3-01-132-23	Extraction Column	1.6	Tons Product	23
3-01-132-24	Vacuum System	10.5	Tons Product	23
3-01-132-27	Fugitive Emissions: General*		Lbs/Year	
Organic Acids Production - 2869				
3-01-132-99	Other Not Classified (Specify in Comments)		Tons Produced	
Acetic Anhydride - 2869				
3-01-133-01	General	5.5	Tons Produced	24
3-01-133-02	Reactor By-Product Gas Vent	9.0	Tons Product	25
3-01-133-03	Distillation Column Vent	1.4	Tons Product	25
3-01-133-80	Fugitive Emissions: General*		Lbs/Year	
Esters Production - 2869				
3-01-137-99	Acrylates: Specify in Comments		Tons Produced	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Acetylene Production - 2813				
3-01-140-01	- Raw Material Handling		Tons Throughput	
3-01-140-02	- Grinding/Milling		Tons Throughput	
3-01-140-03	- Mixing		Tons Throughput	
3-01-140-04	- Waste Handling		Tons Throughput	
3-01-140-05	- General		10^6 Cubic Feet Produced	
Bisphenol A - 2869				
3-01-152-01	- General	0.0	Tons Produced	13
Butadiene - 2869				
3-01-153-01	- General		Tons Product	
3-01-153-10	- Houdry Process: General		Tons Product	
3-01-153-11	- Flue Gas Vent	0.12	Tons Product	26
3-01-153-12	- Dehydrogenation Reactor	11.0	Tons Product	14
3-01-153-20	- N-Butene Process: General		Tons Product	
3-01-153-21	- Flue Gas Vent	0.12	Tons Product	26
3-01-153-22	- Hydrocarbon Absorber Column	10.0	Tons Product	26
3-01-153-80	- Fugitive Emissions: General*	313,000	Lbs/Year	101
Cumene Production - 2865				
3-01-156-01	- General		Tons Produced	
3-01-156-02	- Benzene Drying Column	0.4	Tons Product	27
3-01-156-03	- Catalyst Mix Tank Scrubber Vent	0.32	Tons Product	27
3-01-156-04	- Wash-Decant System Vent	0.02	Tons Product	27
3-01-156-05	- Benzene Recovery	0.034	Tons Product	27
3-01-156-06	- Cumene Distillation System Vent	0.06	Tons Product	27
3-01-156-07	- DIPB Stripping Vent	0.002	Tons Product	27
3-01-156-80	- Fugitive Emissions: General*	150,000	Lbs/Year	1,2
Cyclohexane - 2865				
3-01-157-01	- General	0.006	Tons Produced	28
3-01-157-02	- Blowdown Tank Discharge		Tons Product	
3-01-157-03	- Pumps/Valves/Compressors		Tons Product	
3-01-157-04	- Catalyst Replacement		Tons Product	
3-01-157-80	- Fugitive Emissions: General*		Lbs/Year	
Cyclohexanone/ol - 2869				
3-01-158-01	- General	78	Tons Produced	29
3-01-158-80	- Fugitive Emissions: General*		Lbs/Year	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Cyclohexanone/ol - Cyclohexane Oxidation Process - 2869				
3-01-158-02	High Pressure Scrubber Vent	33.5	Tons Product	30
3-01-158-03	Low Pressure Scrubber Vent	5.2	Tons Product	30
Cyclohexanone/ol - Phenol Hydrogenation Process - 2869				
3-01-158-21	Hydrogenation Reactor Vent	3.0	Tons Product	30
3-01-158-22	Distillation Vent	0.12	Tons Product	30
Vinyl Acetate - 2869				
3-01-167-01	General		Tons Produced	
3-01-167-02	Inert-Gas Purge Vent	8.8	Tons Product	31
3-01-167-03	CO_2 Vent	0.62	Tons Product	31
3-01-167-04	Inhibitor Mix Tank Discharge	5.6	Tons Product	31
3-01-167-80	Fugitive Emissions: General*	360,000	Lbs/Year	1,2
3-01-167-99	Specify in Comments		Tons Product	
Ethylbenzene - 2865				
3-01-169-01	General	0.01	Tons Produced	13
3-01-169-02	Alkylation Reactor Vent	0.0	Tons Product	13
3-01-169-03	Benzene Drying	0.0	Tons Product	13
3-01-169-04	Benzene Recovery/Recycle	0.0	Tons Product	13
3-01-169-05	Ethylbenzene Recovery	0.0	Tons Product	13
3-01-169-06	Polyethylbenzene Recovery	0.0	Tons Product	13
3-01-169-80	Fugitive Emissions: General*		Lbs/Year	
Ethylene Oxide - 2869				
3-01-174-01	General	7.8	Tons Produced	13
3-01-174-02	Air-Oxidation Process Reactor-Main Vent	2.8	Tons Product	13
3-01-174-10	Oxygen-Oxidation Process Reactor-CO_2 Purge Vent		Tons Product	
3-01-174-11	Oxygen-Oxidation Process Reactor-Argon Purge Vent		Tons Product	
3-01-174-21	Stripper Purge Vent	0.004	Tons Product	32
3-01-174-80	Fugitive Emissions: General*		Lbs/Year	32
Glycerin (Glycerol) - 2869				
3-01-176-01	General	130	Tons Produced	34
3-01-176-10	Chlorination Process: General		Tons Product	
3-01-176-11	CO_2 Absorber Vent	0.8	Tons Product	33

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SCC	Process	VOC Lbs/Unit	Units	Notes
Glycerin (Glycerol) - 2869 (Continued)				
3-01-176-12	Evaporator		Tons Product	
3-01-176-13	Concentrator		Tons Product	
3-01-176-14	Stripping Column		Tons Product	
3-01-176-15	Light-ends Stripping Column		Tons Product	
3-01-176-16	Solvent Stripping Column	0.2	Tons Product	33
3-01-176-17	Product Distillation Column		Tons Product	
3-01-176-18	Cooling Tower	5.6	Tons Product	33
3-01-176-30	Oxidation Process: General		Tons Product	
3-01-176-31	Light-ends Stripper	30.0	Tons Product	33
3-01-176-32	Concentrator	0.3	Tons Product	33
3-01-176-33	Glycerin Flasher Column	0.3	Tons Product	33
3-01-176-34	Product Distillation Column	0.3	Tons Product	33
3-01-176-80	Fugitive Emissions: General*		Lbs/Year	
Toluene Diisocyanate - 2865				
3-01-181-01	General		Tons Produced	
3-01-181-02	Sulfuric Acid Concentrator	10.0	Tons Product	35
3-01-181-03	Nitration Reactor	0.05	Tons Product	35
3-01-181-04	Catalyst Filtration	0.001	Tons Product	35
3-01-181-05	TDA Vacuum Distillation Unit	0.007	Tons Product	35
3-01-181-06	Dichlorobenzene Solvent Recovery	9.2	Tons Product	35
3-01-181-07	TDI Flash Distillation		Tons Product	
3-01-181-08	TDI Purification		Tons Product	
3-01-181-09	Residue Vacuum Distillation Unit	0.0	Tons Product	35
3-01-181-10	HCL Absorber	0.0	Tons Product	35
3-01-181-80	Fugitive Emissions: General*		Lbs/Year	
Methyl Methacrylate - 2869				
3-01-190-01	General		Tons Product	
3-01-190-02	Acetone Cyanohydrin Reactor Off-Gas	0.08	Tons Product	36
3-01-190-03	Recovery Columns	2.3	Tons Product	36
3-01-190-04	Acetone Evaporation Vacuum Vent	0.008	Tons Product	36
3-01-190-10	Hydrolysis Reactor	13.2	Tons Product	36
3-01-190-11	Distillation Unit	1.9	Tons Product	36
3-01-190-12	MMA & Light-ends Distillation Unit	16.5	Tons Product	36
3-01-190-13	Acid Distillation	1.1	Tons Product	36
3-01-190-14	MMA Purification	14.1	Tons Product	36
3-01-190-80	Fugitive Emissions: General*	27,000	Lbs/Year	1,2

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SCC	Process	VOC Lbs/Unit	Units	Notes
Nitrobenzene - 2865				
3-01-195-01	- General	2.7	Tons Produced	13
3-01-195-02	- Reactor & Separator Vent	1.9	Tons Product	37
3-01-195-03	- Acid Stripper Vent	0.34	Tons Product	37
3-01-195-04	- Washer & Neutralizer Vent	0.02	Tons Product	37
3-01-195-05	- Nitrobenzene Stripper Vent	0.34	Tons Product	37
3-01-195-06	- Waste Acid Storage	0.005	Tons Product	37
3-01-195-80	- Fugitive Emissions: General*		Lbs/Year	
Olefins Production - 2869				
Ethylene - 2869				
3-01-197-01	- General	1.4	Tons Produced	38
3-01-197-41	- Flue Gas Vent	0.86	Tons Product	38
3-01-197-42	- Pyrolysis Furnace Decoking		Tons Product	
3-01-197-43	- Acid Gas Removal	0.02	Tons Product	38
3-01-197-44	- Catalyst Regeneration		Tons Product	
3-01-197-45	- Compressor Lube Oil Vent	0.2	Tons Product	38
3-01-197-49	- Fugitive Emissions: General*	695,000	Lbs/Year	1,2
Propylene - 2869				
3-01-197-05	- General		Tons Produced	
3-01-197-06	- Reactor	0.0	Tons Product	13
3-01-197-07	- Drying Tower		Tons Product	
3-01-197-08	- Light-ends Stripper		Tons Product	
3-01-197-09	- Fugitive Emissions: General*		Lbs/Year	
Butylene - 2869				
3-01-197-10	- General		Tons Produced	
3-01-197-99	- Other Not Classified (Specify in Comments)		Tons Produced	
Phenol - 2865				
3-01-202-01	- General	20	Tons Produced	39
3-01-202-02	- Cumene Oxidation	7.6	Tons Product	39
3-01-202-03	- CHP Concentrator	4.2	Tons Product	39
3-01-202-04	- Light-ends Distillation Vent		Tons Product	
3-01-202-05	- Acetone Finishing Column		Tons Product	
3-01-202-06	- Phenol Distillation Column	7.6	Tons Product	39
3-01-202-10	- Oxidate Wash/Separation		Tons Product	
3-01-202-11	- CHP Cleavage Vent		Tons Product	
3-01-202-80	- Fugitive Emissions: General*		Lbs/Year	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Propylene Oxide - 2869				
3-01-205-01	General		Tons Produced	
3-01-205-02	Chlorohydronation Process: General		Tons Product	40
3-01-205-03	Vent Gas Scrubber Vent	20.5	Tons Product	40
3-01-205-04	Saponification Column Vent	0.086	Tons Product	40
3-01-205-05	PO Stripping Column Vent	0.012	Tons Product	40
3-01-205-06	Light-ends Stripping Column Vent	0.012	Tons Product	40
3-01-205-07	PO Final Distillation Column Vent	0.012	Tons Product	40
3-01-205-08	DCP Distillation Column Vent	0.0002	Tons Product	40
3-01-205-09	DCIPE Distillation Column Vent	0.0	Tons Product	40
3-01-205-20	Isobutane Hydroperoxide Process: General		Tons Product	40
3-01-205-21	Oxidation Reactor Scrubber Vent	3.5	Tons Product	40
3-01-205-22	TBA Stripping Column Vent	0.008	Tons Product	40
3-01-205-23	Catalyst Mix Tank Vent	0.00002	Tons Product	40
3-01-205-24	PO Stripping Column Vent	0.037	Tons Product	40
3-01-205-25	Crude TBA Recovery Column Vent	0.03	Tons Product	40
3-01-205-26	TBA Wash-Decant System Vent	0.014	Tons Product	40
3-01-205-27	Wastewater Stripping Column Vent	1.9	Tons Product	40
3-01-205-28	Solvent Scrubber Vent	1.3	Tons Product	40
3-01-205-29	Solvent Recovery Column Vent	0.0009	Tons Product	40
3-01-205-30	Water Stripping Column Vent	0.0026	Tons Product	40
3-01-205-31	Propylene Glycol & Dipropylene Glycol Combined Column Vent	0.12	Tons Product	40
3-01-205-32	Flue Gas Vent	0.08	Tons Product	40
3-01-205-40	Ethylbenzene Hydroperoxide Process: General		Tons Product	40
3-01-205-41	Oxidation Reactor Scrubber Vent	1.0	Tons Product	40
3-01-205-42	Falling Film Evaporator Vent	0.01	Tons Product	40
3-01-205-43	Catalyst Mix Tank Vent	0.0	Tons Product	40
3-01-205-44	Separation Column Vent	0.32	Tons Product	40
3-01-205-45	Light-ends Stripping Column Vent	0.32	Tons Product	40
3-01-205-46	Propylene Recovery Column Vent	0.32	Tons Product	40
3-01-205-47	Product Wash-Decant System Vent	0.01	Tons Product	40
3-01-205-48	Mixed Hydrocarbon Wash-Decant System Vent	0.003	Tons Product	40
3-01-205-49	Ethylbenzene Wash-Decant System Vent	0.003	Tons Product	40
3-01-205-50	Ethylbenzene Stripping Column Vent	0.003	Tons Product	40
3-01-205-51	Light Hydrocarbon Stripping Column Vent	0.003	Tons Product	40
3-01-205-52	MBA-AP Stripping Column Vent	0.016	Tons Product	40
3-01-205-53	Dehydration Reactor System Vent	0.016	Tons Product	40

SCC	Process	VOC Lbs/Unit	Units	Notes
Propylene Oxide - 2869 (Continued)				
3-01-205-54	- Light Impurities Stripping Column Vent	2.5	Tons Product	40
3-01-205-55	- Styrene Finishing Column Vent	1.7	Tons Product	40
3-01-205-80	- Fugitive Emissions: General*		Lbs/Year	
Styrene - 2865				
3-01-206-01	- General	33	Tons Produced	41
3-01-206-02	- Benzene Recycle		Tons Product	
3-01-206-03	- Styrene Purification	12	Tons Product	13
3-01-206-80	- Fugitive Emissions: General*		Lbs/Year	
Caprolactam - 2869				
3-01-210-01	- General		Tons Product	
3-01-210-02	- Cyclohexanone Purification Vent	6.2	Tons Product	42
3-01-210-03	- Dehydrogenation Reactor Vent		Tons Product	
3-01-210-04	- Oleum Reactor		Tons Product	
3-01-210-05	- Neutralization Reactor Vent	0.08	Tons Product	42
3-01-210-06	- Solvent Separation/Recovery	4.0	Tons Product	42
3-01-210-07	- Oximation Reactor & Separator	0.05	Tons Product	42
3-01-210-08	- Caprolactam Purification	0.26	Tons Product	42
3-01-210-09	- Ammonium Sulfate Drying	1.2	Tons Product	42
3-01-210-10	- Ammonium Sulfate Cooling/ Screening/Storage	0.11	Tons Product	42
3-01-210-80	- Fugitive Emissions: General*		Lbs/Year	
Linear Alkylbenzene - 2869				
3-01-211-01	- Olefin Process: General		Tons Product	
3-01-211-02	- Benzene Drying	0.0075	Tons Product	13
3-01-211-03	- Hydrogen Fluoride Scrubber Vent	22	Tons Product	43
3-01-211-04	- Vacuum Refining		Tons Product	
3-01-211-21	- Chlorination Process: General	0.0	Tons Product	
3-01-211-22	- Parrafin Drying Column Vent	5.6	Tons Product	43
3-01-211-23	- HCL Absorber Vent	0.13	Tons Product	
3-01-211-24	- Atmospheric Wash-Decant Vent	25	Tons Product	43
3-01-211-25	- Benzene Stripping Column Vent	7.4	Tons Product	43
3-01-211-80	- Fugitive Emissions: General*		Lbs/Year	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Alcohols Production - 2869				
Methanol - 2869				
3-01-250-01	General		Tons Produced	
3-01-250-02	Purge Gas Vent	2.2	Tons Product	44
3-01-250-03	Distillation Vent	0.8	Tons Product	44
3-01-250-04	Fugitive Emissions: General*		Lbs/Year	
Alcohols Production - 2869				
3-01-250-05	Ethanol from Ethylene		Tons Produced	
3-01-250-10	Ethanol by Fermentation		Tons Produced	
3-01-250-15	Isopropanol		Tons Produced	
3-01-250-21	Alcohols by Oxo Process		Tons Produced	
3-01-250-25	Fatty Alcohols by Hydrogenation		Tons Produced	
3-01-250-99	Other Not Classified (Specify in Comments)		Tons Produced	
Ethylene Glycol - 2869				
3-01-251-01	General		Tons Produced	
3-01-251-02	Evaporator Purge Vent	0.95	Tons Product	13
3-01-251-03	Water Removal Steam-Jet Ejector	1.2	Tons Product	13
3-01-251-04	Distillation Column Vent	0.0	Tons Product	13
3-01-251-80	Fugitive Emissions: General*		Lbs/Year	
Ethers Production - 2869				
3-01-252-01	General		Tons Produced	
Glycol Ethers - 2869				
3-01-253-01	General		Tons Produced	
3-01-253-02	Vacuum System Vent	0.03	Tons Product	45
3-01-253-05	Catalyst-Methanol Mix Tank	0.02	Tons Product	45
3-01-253-06	Methanol Recovery Column Vent	0.03	Tons Product	45
3-01-253-15	Catalyst-Ethanol Mix Tank	0.01	Tons Product	45
3-01-253-16	Ethanol Recovery Column Vent	0.19	Tons Product	45
3-01-253-25	Catalyst-Butanol Mix Tank	0.002	Tons Product	45
3-01-253-26	Butanol Recovery Column Vent	0.032	Tons Product	45
3-01-253-80	Fugitive Emissions: General*		Lbs/Year	
Nitriles Production - 2869				
3-01-254-01	Acetonitrile		Tons Produced	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Acrylonitrile - 2869				
3-01-254-05	General	220	Tons Produced	14
3-01-254-06	Absorber Vent: Normal	200	Tons Product	46
3-01-254-07	Absorber Vent: Startup	0.5	Tons Product	46
3-01-254-08	Recovery/Purification Column Vent	20.0	Tons Product	46
3-01-254-09	Fugitive Emissions: General*	22,000	Lbs/Year	1,2
Adiponitrile - 2869				
3-01-254-10	via Adipic Acid: General	1.6	Tons Produced	13
3-01-254-11	Ammonia Recovery Still		Tons Product	
3-01-254-12	Product Fractionator		Tons Product	
3-01-254-13	Product Recovery Vent		Tons Product	
3-01-254-15	via Butadiene: General	51	Tons Product	47
3-01-254-16	Chlorination Reactor	36	Tons Product	47
3-01-254-17	Cyanide Synthesis	0.0	Tons Product	47
3-01 254-18	Cyanation/Isomerization	15.5	Tons Product	47
3-01-254-20	Fugitive Emissions: General*		Lbs/Year	
Nitriles Production - 2869				
3-01-254-99	Other Not Classified (Specify in Comments)		Tons Produced	
Aromatics Production - 2869				
Benzene Production - 2869				
3-01-258-01	General		Tons Produced	
3-01-258-02	Reactor	0.34	Tons Product	13
3-01-258-03	Distillation Unit		Tons Product	
Toluene Production - 2869				
3-01-258-05	General		Tons Produced	
3-01-258-06	Reactor		Tons Product	
3-01-258-07	Distillation Unit		Tons Product	
Aromatics Production - 2869				
3-01-258-10	p-Xylene		Tons Produced	
Mixed Xylenes - 2869				
3-01-258-15	General		Tons Produced	
3-01-258-16	Reactor		Tons Produced	
3-01-258-17	Distillation Unit		Tons Produced	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Aromatics Production - 2869				
3-01-258-80	Fugitive Emissions: General*		Lbs/Year	
3-01-258-99	Other Not Classified (Specify in Comments)		Tons Produced	
Chlorobenzene - 2865				
3-01-301-35	General			
3-01-301-01	Tail Gas Scrubber	1.2	Tons Product	48
3-01-301-02	Benzene Drying: Distillation	0.78	Tons Product	48
3-01-301-03	Benzene Recovery	0.0024	Tons Product	13
3-01-301-04	Heavy-ends Processing	0.17	Tons Product	48
3-01-301-05	MCB Distillation		Tons Product	
3-01-301-06	Vacuum System Vent	0.9	Tons Product	48
3-01-301-07	DCBz Crystallization	0.03	Tons Product	48
3-01-301-08	DCBz Crystal Handling/Loading	0.04	Tons Product	48
3-01-301-10	Catalyst Incineration		Tons Product	48
3-01-301-80	Fugitive Emissions: General*		Lbs/Year	
Carbon Tetrachloride - 2869				
3-01-302-01	General		Tons Product	
3-01-302-02	Distillation Vent	0.01	Tons Product	49
3-01-302-03	Caustic Scrubber	0.3	Tons Product	49
3-01-302-80	Fugitive Emissions: General*	166,000	Lbs/Year	100
Allyl Chloride - 2869				
3-01-303-01	Chlorination Process: General		Tons Product	
3-01-303-02	HCL Absorber	0.3	Tons Product	50
3-01-303-03	Light-ends Distillation Column		Tons Product	50
3-01-303-04	Allyl Chloride Distillation Column	130.0	Tons Product	
3-01-303-05	Dichloropropene Distillation Column		Tons Product	
3-01-303-80	Fugitive Emissions: General*		Lbs/Year	
Allyl Alcohol - 2869				
3-01-304-01	General		Tons Product	
3-01-304-02	Catalyst Preparation	450	Tons Product	51
3-01-304-03	Filtration System	6.4	Tons Product	51
3-01-304-04	Light-ends Stripper	22	Tons Product	51
3-01-304-05	Distillation System Condenser	23	Tons Product	52
3-01-304-80	Fugitive Emissions: General*		Lbs/Year	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Epichlorohydrin - 2869				
3-01-305-01	General		Tons Product	
3-01-305-02	Epoxidation Reactor	208	Tons Product	13
3-01-305-03	Azeotrope Column	208	Tons Product	13
3-01-305-04	Light-ends Stripper	0.0026	Tons Product	13
3-01-305-05	Finishing column	0.68	Tons Product	13
3-01-305-80	Fugitive Emissions: General*		Lbs/Year	
General Processes - 2865, 2869				
3-01-800-01	Fugitive Leaks*		Lbs/Year	3
3-01-810-01	Air Oxidation Units		Tons Product	
3-01-820-01	Wastewater Separators		Tons Product	
3-01-830-01	Storage/Transfer	0.85	Tons Product	53
3-01-840-01	Distillation Units		Tons Product	
Inorganic Chemical Storage				
Fixed Roof Tanks				
3-01-870-01	Hydrochloric Acid: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-870-02	Hydrochloric Acid: Working Loss		10^3 Gallons Throughput	
3-01-870-03	Hydrofluoric Acid: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-870-04	Hydrofluoric Acid: Working Loss		10^3 Gallons Throughput	
3-01-870-05	Nitric Acid: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-870-06	Nitric Acid: Working Loss		10^3 Gallons Throughput	
3-01-870-07	Phosphoric Acid: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-870-08	Phosphoric Acid: Working Loss		10^3 Gallons Throughput	
3-01-870-09	Sulfuric Acid: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-870-10	Sulfuric Acid: Working Loss		10^3 Gallons Throughput	
3-01-870-97	Specify Liquid: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-870-98	Specify Liquid: Working Loss		10^3 Gallons Throughput	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Floating Roof Tanks				
3-01-875-01	- Carbon Disulfide: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-875-02	- Carbon Disulfide: Working Loss		10^3 Gallons Throughput	
3-01-875-97	- Specify Liquid: Breathing Loss		10^3 Gallons Storage Capacity	
3-01-875-98	- Specify Liquid: Working Loss		10^3 Gallons Throughput	
Pressure Tanks				
3-01-885-01	- Ammonia: Withdrawal Loss		10^3 Gallons Throughput	
3-01-885-02	- Carbon Monoxide: Withdrawal Loss		10^3 Gallons Throughput	
3-01-885-03	- Chlorine: Withdrawal Loss		10^3 Gallons Throughput	
3-01-885-04	- Hydrogen Cyanide: Withdrawal Loss		10^3 Gallons Throughput	
3-01-885-05	- Sulfur Dioxide: Withdrawal Loss		10^3 Gallons Throughput	
3-01-885-99	- Specify Gas: Withdrawal Loss		10^3 Gallons Throughput	
Chemical Manufacturing - Fugitive Emissions[f]				
3-01-888-01	- Specify in Comments Field		Tons Product	
3-01-888-02	- Specify in Comments Field		Tons Product	
3-01-888-03	- Specify in Comments Field		Tons Product	
3-01-888-04	- Specify in Comments Field		Tons Product	
3-01-888-05	- Specify in Comments Field		Tons Product	
Chemical Manufacturing - Fuel Fired Equipment				
Process Heaters				
3-01-900-01	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-01-900-02	- Residual Oil		10^3 Gallons Burned	
3-01-900-03	- Natural Gas		10^6 Cubic Feet Burned	
3-01-900-04	- Process Gas		10^6 Cubic Feet Burned	
Incinerators				
3-01-900-11	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-01-900-12	- Residual Oil		10^3 Gallons Burned	
3-01-900-13	- Natural Gas		10^6 Cubic Feet Burned	
3-01-900-14	- Process Gas		10^6 Cubic Feet Burned	
Waste Gas Flares				
3-01-900-99	- General		10^6 Cubic Feet Burned	
Chemical Manufacturing - Other Not Classified				
3-01-999-98	- Specify in Comments		10^3 Gallons Produced	
3-01-999-99	- Specify in Comments		Tons Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
FOOD AND AGRICULTURE - MAJOR GROUPS 01, 02, 07, 20, 21, 42,44, & 51 [n]				
Alfalfa Dehydrating - 2048				
3-02-001-02	Primary Cyclone & Dryer	0.0	Tons Product	
3-02-001-03	Meal Collector Cyclone	0.0	Tons Product	
3-02-001-04	Pellet Cooler Cyclone	0.0	Tons Product	
Coffee Roasting - 2095				
3-02-002-01	Direct Fired Roaster		Tons Green Beans	
3-02-002-02	Indirect Fired Roaster		Tons Green Beans	
3-02-002-03	Stoner/Cooler		Tons Green Beans	
3-02-002-99	Other Not Classified (Specify in Comments)		Tons Product	
Instant Coffee Products - 2095				
3-02-003-01	Spray Dryer		Tons Green Beans	
Cotton Ginning - 0724				
3-02-004-01	Unloading Fan	0.0	Bales of Cotton	
3-02-004-02	Seed Cotton Cleaning System	0.0	Bales of Cotton	
3-02-004-03	Stick/Burr Machine	0.0	Bales of Cotton	
3-02-004-04	Miscellaneous (Lint Cleaner/ Battery Condensers/Master Trash/ Overflow/Mote Fans)	0.0	Bales of Cotton	
3-02-004-10	General (Entire Process, Alternative to Above)	0.0	Bales of Cotton	
Feed and Grain Terminal Elevators - 5153, 4221, 4463				
3-02-005-03	Cleaning	0.0	Tons Grain Processed	
3-02-005-04	Drying	0.0	Tons Grain Processed	
3-02-005-05	Unloading (Receiving)	0.0	Tons Grain Processed	
3-02-005-06	Loading (Shipping)	0.0	Tons Grain Processed	
3-02-005-07	Removal from Bins (Tunnel Belt)	0.0	Tons Grain Processed	
3-02-005-08	Elevator Legs (Headhouse)	0.0	Tons Grain Processed	
3-02-005-09	Tripper (Gallery Belt)	0.0	Tons Grain Processed	
3-02-005-10	Removal from Bins (Tunnel Belt)	0.0	Tons Grain Shipped or received	
3-02-005-11	Elevator Legs (Headhouse)	0.0	Tons Grain Shipped or Received	
Feed and Grain Country Elevators - 5153, 4221				
3-02-006-03	Cleaning	0.0	Tons Grain Processed	
3-02-006-04	Drying	0.0	Tons Grain Processed	
3-02-006-05	Unloading	0.0	Tons Grain Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Feed and Grain Country Elevators - 5153, 4221 (Continued)				
3-02-006-06	Loading	0.0	Tons Grain Processed	
3-02-006-07	Removal from Bins	0.0	Tons Grain Processed	
3-02-006-08	Elevator Legs	0.0	Tons Grain Processed	
3-02-006-09	Removal from Bins	0.0	Tons Grain Shipped or Received	
3-02-006-10	Elevator Legs	0.0	Tons Grain Shipped Received	
Barley Milling - 2041				
3-02-007-03	Barley Cleaning	0.0	Tons Grain Processed	
3-02-007-05	Barley Flour Mill	0.0	Tons Grain Processed	
Milo Milling - 2041				
3-02-007-04	Milo Cleaning	0.0	Tons Grain Processed	
Drum Mills - 2041				
3-02-007-11	Grain Receiving	0.0	Tons Grain Processed	
3-02-007-12	Precleaning/Handling	0.0	Tons Grain Processed	
3-02-007-13	Cleaning House	0.0	Tons Grain Processed	
3-02-007-14	Millhouse	0.0	Tons Grain Processed	
Rye Milling - 2041				
3-02-007-21	Grain Receiving	0.0	Tons Grain Processed	
3-02-007-22	Precleaning/Handling	0.0	Tons Grain Processed	
3-02-007-23	Cleaning House	0.0	Tons Grain Processed	
3-02-007-24	Millhouse	0.0	Tons Grain Processed	
Wheat Mills - 2041				
3-02-007-31	Grain Receiving	0.0	Tons Grain Processed	
3-02-007-32	Precleaning/Handling	0.0	Tons Grain Processed	
3-02-007-33	Cleaning House	0.0	Tons Grain Processed	
3-02-007-34	Millhouse	0.0	Tons Grain Processed	
Dry Corn Milling - 2041				
3-02-007-41	Grain Receiving	0.0	Tons Grain Received	
3-02-007-42	Grain Drying	0.0	Tons Grain Received	
3-02-007-43	Precleaning/Handling	0.0	Tons Grain Received	
3-02-007-44	Cleaning House	0.0	Tons Grain Received	
3-02-007-45	Degerming and Milling	0.0	Tons Grain Received	
3-02-007-51	Grain Receiving	0.0	Tons Grain Received	
3-02-007-52	Grain Handling	0.0	Tons Grain Received	
3-02-007-53	Grain Cleaning	0.0	Tons Grain Received	

SCC	Process	VOC Lbs/Unit	Units	Notes
Wet Corn Milling - 2046 (Continued)				
3-02-007-54	- Dryers	0.0	Tons Grain Received	
3-02-007-55	- Bulk Loading	0.0	Tons Grain Received	
3-02-007-56	- Milling	0.0	Tons Grain Received	
Oat Milling - 2041				
3-02-007-60	- General	0.0	Tons Grain Received	
Rice Milling - 2044				
3-02-007-71	- Grain Receiving	0.0	Tons Grain Received	
3-02-007-72	- Precleaning/Handling	0.0	Tons Grain Received	
3-02-007-73	- Drying	0.0	Tons Grain Received	
3-02-007-74	- Cleaning and Millhouse	0.0	Tons Grain Received	
Soybean Mills - 2075, 2041				
3-02-007-81	- Grain Receiving	0.0	Tons Grain Received	
3-02-007-82	- Grain Handling	0.0	Tons Grain Received	
3-02-007-83	- Grain Cleaning	0.0	Tons Grain Received	
3-02-007-84	- Drying	0.0	Tons Grain Received	
3-02-007-85	- Cracking & Dehulling	0.0	Tons Grain Received	
3-02-007-86	- Hull Grinding	0.0	Tons Grain Received	
3-02-007-87	- Bean Conditioning	0.0	Tons Grain Received	
3-02-007-88	- Flaking	0.0	Tons Grain Received	
3-02-007-89	- Meal Dryer	0.0	Tons Grain Received	
3-02-007-90	- Meal Cooler	0.0	Tons Grain Received	
3-02-007-91	- Bulk Loading	0.0	Tons Grain Received	
Feed Manufacture - 2082				
3-02-008-02	- Grain Receiving	0.0	Tons Grain Received	
3-02-008-03	- Shipping	0.0	Tons Grain Received	
3-02-008-04	- Handling	0.0	Tons Grain Received	
3-02-008-05	- Grinding	0.0	Tons Grain Received	
3-02-008-06	- Pellet Coolers	0.0	Tons Grain Received	
Beer Production - 2082				
3-02-009-01	- Grain Handling	0.0	Tons Grain Processed	
3-02-009-02	- Drying Spent Grains	2.6	Tons Grain Processed	
3-02-009-03	- Brewing	0.0	10^3 Gallons	
3-02-009-04	- Aging	0.0	Barrel-Year of Stored Product	
3-02-009-05	- Malt Dryer	0.0	Tons Grain Dried	

SCC	Process	VOC Lbs/Unit	Units	Notes
Whiskey Fermentation - 2085				
3-02-010-01	- Grain Handling	0.0	Tons Grain Processed	
3-02-010-02	- Drying Spent Grains		Tons Grain Processed	
3-02-010-03	- Aging	10.0	Barrels (50 Gallon)	
3-02-010-04	- Fermentation Tank		10^3 Gallons Produced	
Wines, Brandy, and Brandy Spirits - 2084				
3-02-011-03	- Aging		Barrel-Year of Stored Product	
3-02-011-04	- Fermentation: Tank		10^3 Gallons Produced	
3-02-011-05	- Fermentation at 52 F	1.06	10^3 Gallons Produced	
3-02-011-06	- Fermentation at 80 F	4.79	10^3 Gallons Produced	
3-02-011-99	- Other Not Classified (Specify in Comments)		Gallons Produced	
Fish Processing - 2077, 2091				
3-02-012-01	- Cooker-Fresh Fish Scrap	0.3	Tons Fish Processed	
3-02-012-02	- Cookers-Stale Fish Scrap	3.5	Tons Fish Processed	
3-02-012-04	- Canning Cookers		Tons Fish Processed	
3-02-012-05	- Steam Tube Dryer		Tons Fish Scrap	
3-02-012-06	- Direct Fire Dryer		Tons Fish Scrap	
Meat Smokehouses - 2012, 2013				
3-02-013-01	- Combined Operations	0.07	Tons Meat Smoked	
Starch Manufacturing - 2036				
3-02-014-01	- Combined Operations		Tons Starch Produced	
Sugar Cane Processing - 2061, 2062				
3-02-015-99	- Other Not Classified (Specify in Comments)		Tons Sugar Produced	
Sugar Beet Processing - 2063				
3-02-016-01	- Dryer		Tons Raw Beets	
3-02-016-99	- Other Not Classified (Specify in Comments)		Tons Raw Beets	
Peanut Processing - 2076, 2079, 2099				
3-02-017-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Candy Manufacturing - 2065, 2066				
3-02-018-99	- Other Not Classified (Specify in Comments)		Tons Product	

SCC	Process	VOC Lbs/Unit	Units	Notes
Vegetable Oil Processing - Specific Products/General - 2046, 2074, 2076, 2079				
3-02-019-01	Corn Oil: General (2046)		Tons Refined Oil Produced	55
3-02-019-02	Cottonseed Oil: General (2074)		Tons Refined Oil Produced	55
3-02-019-03	Soybean Oil: General (2075)		Tons Refined Oil Produced	55
3-02-019-04	Coconut Oil: General (2076)		Tons Refined Oil Produced	
3-02-019-05	Peanut Oil: General (2076)		Tons Refined Oil Produced	55
3-02-019-99	Other Not Classified (2076, 2079) (Specify in Comments)		Tons Refined Oil Produced	
Vegetable Oil Processing - General Processes for All Products - 2046, 2074, 2076, 2079				
3-02-019-11	Oil Extraction		Tons Refined Oil Produced	56
3-02-019-12	Meal Preparation		Tons Refined Oil Produced	56
3-02-019-13	Oil Refining		Tons Refined Oil Produced	56
3-02-019-14	Fugitive Leaks		Tons Refined Oil Produced	
3-02-019-15	Solvent Storage		Tons Refined Oil Produced	
Beef Cattle Feed Lots - 0211				
3-02-020-01	Feed Lots - General		Head of Cattle Capacity	
3-02-020-02	Feed Lots - General		Head of Cattle Throughput	
Cotton Seed Delinting - 0723				
3-02-022-01	Acid Delinting of Cotton Seeds		Tons Cotton Seed Delinted	
Seed Production and Processing - 0180, 5191				
3-02-026-01	Seed Handling - General		Tons Processed	
Mushroom Growing				
3-02-028-01	General		Tons Produced	
Dairy Products - 2021, 2022, 2023, 2024, 2026				
3-02-030-01	Milk Spray-Dryer		Tons Product	
3-02-030-99	Other Not Classified (Specify in Comments)		Tons Product	
Export Grain Elevators - 4463, 4221 [o]				
3-02-031-03	Cleaning	0.0	Tons Grain Processed	
3-02-031-04	Drying	0.0	Tons Grain Processed	
3-02-031-05	Unloading	0.0	Tons Grain Processed	
3-02-031-06	Loading	0.0	Tons Grain Processed	
3-02-031-07	Removal from Bins (Tunnel Belt)	0.0	Tons Grain Processed	
3-02-031-08	Elevator Legs	0.0	Tons Grain Processed	
3-02-031-09	Tripper (Gallery Belt)	0.0	Tons Grain Processed	
3-02-031-10	Removal from Bins (Tunnel Belt)	0.0	Tons Grain Shipped or Received	
3-02-031-11	Elevator Legs	0.0	Tons Grain Shipped or Received	

SCC	Process	VOC Lbs/Unit	Units	Notes
Bakeries - 2051, 2052				
3-02-032-01	Bread Baking: Sponge-Dough Process	13.0	Tons of Bread Baked	
3-02-032-02	Bread Baking: Straight-Dough Process	1.0	Tons of Bread Baked	
3-02-032-99	Other Not Classified (Specify in Comments)		Tons Product	
Tobacco Processing - 2111, 2121, 2131, 2141				
3-02-033-99	Other Not Classified (Specify in Comments)		Tons Product	
Deep Fat Frying - 2099, 2017, 2051, 2092				
3-02-036-01	Cooking Vats: General		Tons Processed	
Food & Agriculture - Fugitive Emissions [f]				
3-02-888-01	Specify in Comments Field		Tons Product	
3-02-888-02	Specify in Comments Field		Tons Product	
3-02-888-03	Specify in Comments Field		Tons Product	
3-02-888-04	Specify in Comments Field		Tons Product	
3-02-888-05	Specify in Comments Field		Tons Product	
Food & Agriculture - Fuel Fired Equipment				
Process Heaters				
3-02-900-01	Distillate Oil (No.2)		10^3 Gallons Burned	
3-02-900-02	Residual Oil		10^3 Gallons Burned	
3-02-900-03	Natural Gas		10^3 Cubic Feet Burned	
Food & Agriculture - Other Not Classified				
3-02-999-98	Specify in Comments		Tons Processed (Input)	
3-02-999-99	Specify in Comments		Tons Produced (Finished)	
PRIMARY METAL PRODUCTION - MAJOR GROUPS 10 & 33				
Aluminum Ore - Bauxite - 1051				
3-03-000-01	Crushing/Handling	0.0	Tons of Ore	
3-03-000-02	Drying Oven		Tons of ore	
Aluminum Ore: Electro-Reduction - 3334				
3-03-001-01	Prebaked Reduction Cell		Tons of Molten Aluminum Produced	
3-03-001-02	Horizontal Stud Soderberg Cell		Tons Of Molten Aluminum Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Aluminum Ore: Electro-Reduction - 3334 (Continued)				
3-03-001-03	Vertical Stud Soderberg		Tons of Molten Aluminum Produced	
3-03-001-04	Materials Handling		Tons of Molten Aluminum Produced	
3-03-001-05	Anode Baking Furnace		Tons of Molten Aluminum Produced	
3-03-001-06	Degassing	0.0	Tons of Molten Aluminum Produced	
3-03-001-07	Roof Vents		Tons of Molten Aluminum Produced	
3-03-001-08	Prebake: Fugitive Emissions		Tons of Molten Aluminum Produced	
3-03-001-09	H.S.S.: Fugitive Emissions		Tons of Molten Aluminum Produced	
3-03-001-10	V.S.S.: Fugitive Emissions		Tons of Molten Aluminum Produced	
3-03-001-11	Anode Baking: Fugitive Emissions		Tons of Molten Aluminum Produced	
Aluminum Hydroxide Calcining - 3334				
3-03-002-01	Overall Process		Tons of Alumina Produced	
By-Product Coke Manufacturing - 3312				
3-03-003-02	Oven Charging	1.17	Tons Coal Charged	
3-03-003-03	Oven Pushing	0.09	Tons Coal Charged	
3-03-003-04	Quenching		Tons Coal Charged	
3-03-003-05	Coal Unloading	0.0	Tons Coal Charged	
3-03-003-06	Oven Underfiring		Tons Coal Charged	
3-03-003-07	Coal Crushing/Handling	0.0	Tons Coal Charged	
3-03-003-08	Oven/Door Leaks	0.7	Tons Coal Charged	
3-03-003-09	Coal Conveying	0.0	Tons Coal Processed	
3-03-003-10	Coal Crushing	0.0	Tons Coal Processed	
3-03-003-11	Coal Screening	0.0	Tons Coal Processed	
3-03-003-12	Coke Crushing/Screening/Handling	0.0	Tons Coke Processed	
3-03-003-13	Coal Preheater	0.32	Tons Coal Charged	57
3-03-003-14	Topside Leaks		Tons Coal Charged	
3-03-003-15	Gas By-Product Plant	0.0	10^6 Cubic Feet Gas Processed	
3-03-003-16	Coal Storage Pile	0.0	Tons Coal Charged	
Coke Manufacture: Beehives - 3312				
3-03-004-01	General	8.0	Tons Coal Charged	

SCC	Process	VOC Lbs/Unit	Units	Notes
Primary Copper Smelters - 3331				
3-03-005-02 -	Multiple Hearth Roaster	NEG	Tons Concentrated Ore Processed	58
3-03-005-03 -	Reverberatory Smelting Furnace after Roaster	NEG	Tons Concentrated Ore Processed	58
3-03-005-04 -	Converter (All Configurations)	NEG	Tons Concentrated Ore Processed	58
3-03-005-05 -	Fire (Furnace) Refining[r]	NEG	Tons Concentrated Ore Processed	58
3-03-005-06 -	Ore Concentrate Dryer	NEG	Tons Concentrated Ore Processed	58
3-03-005-07 -	Reverberatory Smelting Furnace with Ore Charging (w/o Roasting)	NEG	Tons Concentrated Ore Processed	58
3-03-005-08 -	Refined Metal Finishing Operations	NEG	Tons Concentrated Ore Processed	58
3-03-005-09 -	Fluidized-Bed Roaster	NEG	Tons Concentrated Ore Processed	58
3-03-005-10 -	Electric Smelting Furnace	NEG	Tons Concentrated Ore Processed	58
3-03-005-11 -	Electrolytic Refining	NEG	Tons Concentrated Ore Processed	58
3-03-005-12 -	Flash Smelting	NEG	Tons Concentrated Ore Processed	58
3-03-005-13 -	Roasting: Fugitive Emissions	NEG	Tons Concentrated Ore Processed	58
3-03-005-14 -	Reverberatory Furnace: Fugitive Emissions	NEG	Tons Concentrated Ore Processed	58
3-03-005-15 -	Converter: Fugitive Emissions	NEG	Tons Concentrated Ore Processed	58
3-03-005-16 -	Anode Refining Furnace: Fugitive Emissions	NEG	Tons Concentrated Ore Processed	58
3-03-005-17 -	Slag Cleaning Furnace: Fugitive Emissions	NEG	Tons Concentrated Ore Processed	58
3-03-005-18 -	Converter Slag Return: Fugitive Emissions	NEG	Tons Concentrated Ore Processed	58
3-03-005-21 -	Noranda Reactor	NEG	Tons Concentrated Ore Processed	58
3-03-005-22 -	Slag Cleaning Furnace	NEG	Tons Concentrated Ore Processed	58
3-03-005-23 -	Reverberatory Furnace w/Converter	NEG	Tons Concentrated Ore Processed	58
3-03-005-24 -	Multi-Hearth Roaster w/ Reverberatory Furnace & Convertor or Fluid Bed Roaster w/Electric Furnace w/Convertor	NEG	Tons Concentrated Ore Processed	58

SCC	Process	VOC Lbs/Unit	Units	Notes
Primary Copper Smelters - 3331 (Continued)				
3-03-005-25	Fluid Bed Roaster w/Reverberatory Furnace & Convertor	NEG	Tons Concentrated Ore Processed	58
3-03-005-26	Dryer w/Electric Furnace & Cleaning Furnace & Convertor	NEG	Tons Concentrated Ore Processed	58
3-03-005-27	Dryer w/Flash Furnace & Convertor	NEG	Tons Concentrated Ore Processed	58
3-03-005-28	Noranda Reactor & Convertor	NEG	Tons Concentrated Ore Processed	58
3-03-005-99	Other Not Classified (Specify in Comments)		Tons Concentrated Ore Processed	
Ferroalloy (Open Furnace) - 3313				
3-03-006-01	50% FeSi: Electric Smelting Furnaces	6.4	Tons Produced	59
3-03-006-02	75% FeSi: Electric Smelting Furnaces		Tons Produced	
3-03-006-03	90% FeSi: Electric Smelting Furnaces		Tons Produced	
3-03-006-04	Silicon Metal: Electric Smelting Furnaces	72	Tons Produced	59
3-03-006-05	Siliconmanganese: Electric Smelting Furnaces		Tons Produced	
3-03-006-10	Ore Screening		Tons Processed	
3-03-006-11	Ore Dryer		Tons Processed	
3-03-006-13	Raw Materials Storage		Tons Processed	
3-03-006-14	Raw Materials Transfer		Tons Processed	
3-03-006-15	Ferromanganese: Blast Furnace	16	Tons Produced	59
3-03-006-16	Ferrosilicon: Blast Furnace		Tons Produced	
3-03-006-17	Cast House		Tons Produced	
3-03-006-99	Other Not Classified (Specify in Comments)		Tons Produced	
Ferroalloy (Semi-Covered Furnace) - 3313				
3-03-007-01	Ferromanganese: Electric Arc Furnace	1.4	Tons Produced	59
3-03-007-02	Electric Arc Furnace (Other Alloys Specify in Comments)		Tons Produced	
3-03-007-03	Ferrochromium - Electric Arc	8.2	Tons Produced	59
3-03-007-04	Ferrochromium Silicon - Electric Arc Furnace	8.2	Tons Produced	59
Iron Production - 3312				
3-03-008-01	Blast Furnace: Ore Charge	0.0	Tons Iron Produced	
3-03-008-02	Blast Furnace: Agglomerates Charge	0.0	Tons Iron Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Blast Furnace Slag				
3-03-008-04	- Loader: Hi-Silt	0.0	Tons Slag Transferred	
3-03-008-05	- Loader: Lo-Silt	0.0	Tons Slag Transferred	
3-03-008-08	- Slag Crushing and Sizing		Tons Processed	
3-03-008-09	- Slag Removal and Dumping		Tons Processed	
Sintering - 3312				
3-03-008-11	- Raw Material Stockpiles, Coke Breeze, Limestone, Ore Fines	4.8	Tons Sinter Produced	60
3-03-008-12	- Raw Material Transfer/Handling		Tons Sinter Produced	
3-03-008-13	- Windbox	1.4[d]	Tons Sinter Produced	
3-03-008-14	- Sinter Discharge End		Tons Sinter Produced	
3-03-008-15	- Sinter Breaker		Tons Sinter Produced	
3-03-008-16	- Sinter Hot Screening		Tons Sinter Produced	
3-03-008-17	- Sinter Cooler		Tons Sinter Produced	
3-03-008-18	- Sinter Cold Screening		Tons Sinter Produced	
3-03-008-19	- Sinter Processing (Combined Code Includes 15, 16, 17, 18)		Tons Sinter Produced	
3-03-008-20	- Sinter Conveyor: Transfer Station	0.0	Tons Sinter Transferred	
3-03-008-21	- Unloading Ore, Pellets, Limestone into Blast Furnace	0.0	Tons Ore Transferred	
3-03-008-22	- Blast Furnace Raw Materials Stockpiles: Ore, Pellets Limestone, Coke, Sinter		Tons Processed	
3-03-008-23	- Blast Furnace Charge Materials Transfer/Handling		Tons Processed	
3-03-008-24	- Blast Heating Stoves		Tons Processed	
3-03-008-25	- Cast House		Tons Processed	
3-03-008-26	- Blast Furnace Slips		Number of Slips	
3-03-008-27	- Lump Ore Unloading	0.0	Tons Ore Transferred	
Fugitive Emissions: Roads				
3-03-008-31	- Unpaved Roads: LDV	0.0	Vehicle-Miles Traveled	
3-03-008-32	- Unpaved Roads: MDV	0.0	Vehicle-Miles Traveled	
3-03-008-33	- Unpaved Roads: HDV	0.0	Vehicle-MIles Traveled	
3-03-008-34	- Paved Roads: All	0.0	Vehicle-Miles Traveled	
Steel Production - 3312				
3-03-009-01	- Open Hearth Furnace: Stack	0.17	Tons Produced	57
3-03-009-04	- Electric Arc Furnace: Stack (Alloy Steel)	0.35	Tons Produced	57
3-03-009-06	- Charging: EAF		Tons Produced	
3-03-009-07	- Tapping: EAF		Tons Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Steel Production - 3312 (Continued)				
3-03-009-08	- Electric Arc Furnace: Stack (Carbon Steel)		Tons Produced	
3-03-009-10	- Pickling		Tons Produced	
3-03-009-11	- Soaking Pits		Tons Produced	
3-03-009-12	- Grinding		Tons Produced	
3-03-009-13	- Basic Oxygen Furnace: Open Hood-Stack		Tons Produced	
3-03-009-14	- Basic Oxygen Furnace: Closed Hood-Stack		Tons Produced	
3-03-009-15	- Hot Metal (Iron) Transfer to Steelmaking Furnace		Tons Produced	
3-03-009-16	- Charging: BOF	0.001	Tons Produced	57
3-03-009-17	- Tapping: BOF		Tons Produced	
3-03-009-18	- Charging: Open Hearth		Tons Produced	
3-03-009-19	- Tapping: Open Hearth		Tons Produced	
3-03-009-21	- Teeming (Unleaded Steel)		Tons Produced	
3-03-009-22	- Continuous Casting		Tons Produced	
3-03-009-23	- Steel Furnace Slag Tapping and Dumping		Tons Produced	
3-03-009-24	- Steel Furnace Slag Processing, Crushing and Sizing		Tons Produced	
3-03-009-25	- Teeming (Leaded Steel)		Tons Produced	
3-03-009-31	- Hot Rolling	0.08	Tons Produced	57
3-03-009-32	- Machine Scarfing		Tons Produced	
3-03-009-33	- Reheat Furnaces		Tons Produced	
3-03-009-34	- Heat Treating Furnaces, Annealing		Tons Produced	
3-03-009-35	- Cold Rolling	0.56	Tons Produced	57
3-03-009-36	- Coating (Tin, Zinc, etc.)		Tons Produced	
3-03-009-98	- Other Not Classified (Specify in Comments)		Tons Produced Each	
3-03-009-99	- Other Not Classified (Specify in Comments)		Tons Produced	
Lead Smelters - 3332				
3-03-010-01	- Sintering: Single Stream	NEG	Tons of Concentrated Ore Processed	58
3-03-010-02	- Blast Furnace Operation	NEG	Tons of Concentrated Ore Processed	58
3-03-010-03	- Dross Reverberatory Furnace	NEG	Tons of Concentrated Ore Processed	58
3-03-010-04	- Ore Crushing	NEG	Tons of Ore Crushed	58
3-03-010-05	- Materials Handling (Includes 11, 12, 13, 04, 14)	NEG	Tons of Lead Product	58

SCC	Process	VOC Lbs/Unit	Units	Notes
3-03-010-06	Sintering: Dual Stream Feed End	NEG	Tons of Concentrated Ore Processed	58
3-03-010-07	Sintering: Dual Stream Discharge End	NEG	Tons of Concentrated Ore Processed	58
3-03-010-08	Slag Fume Furnace	NEG	Tons of Lead Product	58
3-03-010-09	Lead Drossing	NEG	Tons of Lead Product	58
3-03-010-10	Crushing & Grinding	NEG	Tons Processed	58
3-03-010-11	Raw Material Unloading	NEG	Tons of Raw Material	58
3-03-010-12	Raw Material Storage Piles	NEG	Tons of Raw Material	58
3-03-010-13	Raw Material Transfer	NEG	Tons of Raw Material	58
3-03-010-14	Sintering Charge Mixing	NEG	Tons of Sinter	58
3-03-010-15	Sinter Crushing/Screening	NEG	Tons of Sinter	58
3-03-010-16	Sinter Transfer	NEG	Tons of Sinter	58
3-03-010-17	Sinter Fines Return Handling	NEG	Tons of Sinter	58
3-03-010-18	Blast Furnace Charging	NEG	Tons of Lead Product	
3-03-010-19	Blast Furnace Tapping (Metal and Slag)	NEG	Tons of Lead Product	58
3-03-010-20	Blast Furnace Lead Pouring	NEG	Tons of Lead Product	58
3-03-010-21	Blast Furnace Slag Pouring	NEG	Tons of Lead Product	58
3-03-010-22	Lead Refining/Silver Retort Building	NEG	Tons of Lead Product	58
3-03-010-23	Lead Casting	NEG	Tons of Lead Product	58
3-03-010-24	Reverberatory or Kettle Softening	NEG	Tons of Lead Product	58
3-03-010-25	Sinter Machine Leakage	NEG	Tons of Sinter	58
3-03-010-26	Sinter Dump Area	NEG	Tons of Sinter	58
Molybedenum Ore Mining - 1061				
3-03-011-01	Mining: General	0.0	Hundreds of Tons Mined	
3-03-011-02	Milling: General	0.0	Hundreds of Tons Mined	
3-03-011-99	Processing (Specify in Comments)		Hundreds of Tons Mined	
Titanium Processing - 3339, 3369, 3356				
3-03-012-01	Chlorination	0.0	Tons Product	
3-03-012-02	Drying Titanium Sand Ore (Cyclone Exit)		Tons Processed	
3-03-012-99	Other Not Classified (Specify in Comments)		Tons Processed	
Gold Processing - 1041, 3341, 3339				
3-03-013-01	Mining/Processing	0.0	Tons of Ore	

SCC	Process	VOC Lbs/Unit	Units	Notes
Barium Ore Processing - 3295				
3-03-014-01	- Ore Grinding		Tons Processed	
3-03-014-02	- Reduction Kiln		Tons Processed	
3-03-014-03	- Dryers/Calciners		Tons Processed	
3-03-014-99	- Others Not Classified (Specify in Comments)			
Taconite Iron Ore Processing - 1011				
3-03-023-01	- Primary Crushing		Tons Pellets Produced	
3-03-023-02	- Fines Crushing		Tons Pellets Produced	
3-03-023-03	- Ore Screening		Tons Pellets Produced	
3-03-023-04	- Ore Transfer		Tons Pellets Produced	
3-03-023-05	- Ore Storage		Tons Pellets Produced	
3-03-023-06	- Dry Grinding/Milling		Tons Pellets Produced	
3-03-023-07	- Bentonite Storage		Tons Pellets Produced	
3-03-023-08	- Bentonite Blending		Tons Pellets Produced	
3-03-023-09	- Traveling Grate Feed		Tons Pellets Produced	
3-03-023-10	- Traveling Grate Discharge		Tons Pellets Produced	
3-03-023-11	- Chip Regrinding		Tons Pellets Produced	
3-03-023-12	- Indurating Furnace: Gas Fired		Tons Pellets Produced	
3-03-023-13	- Indurating Furnace: Oil Fired		Tons Pellets Produced	
3-03-023-14	- Indurating Furnace: Coal Fired		Tons Pellets Produced	
3-03-023-15	- Pellet Cooler		Tons Pellets Produced	
3-03-023-16	- Pellet Transfer		Tons Pellets Produced	
3-03-023-21	- Haul Road: Rock	0.0	Vehicle-Miles Travelled	
3-03-023-22	- Haul Road: Taconite	0.0	Vehicle-Miles Travelled	
Metal Mining - General Processes - 1011-1099^{W}				
3-03-024-01	- Primary Crushing (low moisture ore)		Tons Ore Processed	
3-03-024-02	- Secondary Crushing (low moisture ore)		Tons Ore Processed	
3-03-024-03	- Tertiary Crushing (low moisture ore)		Tons Ore Processed	
3-03-024-04	- Material Handling (low moisture ore)		Tons Ore Processed	
3-03-024-05	- Primary Crushing (high moisture ore)		Tons Ore Processed	
3-03-024-06	- Secondary Crushing (high moisture ore)		Tons Ore Processed	
3-03-024-07	- Tertiary Crushing (high moisture ore)		Tons Ore Processed	
Metal Mining - General Processes - 1011-1099				
3-03-024-08	- Material Handling (high moisture ore)		Tons Ore Processed	
3-03-024-09	- Dry Grinding w/air conveying		Tons Ore Processed	
3-03-024-10	- Dry Grinding w/o air conveying, etc.		Tons Ore Processed	
3-03-024-11	- Ore Drying		Tons Ore Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Zinc Smelting - 3333				
3-03-030-02	Multiple Hearth Roaster	0.0	Tons Processed	
3-03-030-03	Sinter Strand	NEG	Tons Processed	58
3-03-030-05	Vertical Retort/Electrothermal Furnace	NEG	Tons Processed	58
3-03-030-06	Electrolytic Processor	NEG	Tons Processed	58
3-03-030-07	Flash Roaster	NEG	Tons Processed	58
3-03-030-08	Fluid Bed Roaster	NEG	Tons Processed	58
3-03-030-09	Raw Material Handling and Transfer	0.0	Tons Processed	
3-03-030-10	Sinter Breaking and Cooling	0.0	Tons Processed	
3-03-030-11	Zinc Casting	0.0	Tons Processed	
3-03-030-12	Raw Material Unloading	0.0	Tons Processed	
3-03-030-14	Crushing/Screening	0.0	Tons Processed	
3-03-030-15	Zinc Melting	0.0	Tons Processed	
3-03-030-16	Alloying	0.0	Tons Processed	
Primary Metal Industries - Fuel Fired Equipment				
Process Heaters				
3-03-900-01	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-03-900-02	Residual Oil		10^3 Gallons Burned	
3-03-900-03	Natural Gas		10^6 Cubic Feet Burned	
3-03-900-04	Process Gas		10^6 Cubic Feet Burned	
Incinerators				
3-03-900-11	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-03-900-12	Residual Oil		10^3 Gallons Burned	
3-03-900-13	Natural Gas		10^6 Cubic Feet Burned	
3-03-900-14	Process Gas		10^6 Cubic Feet Burned	
Flares				
3-03-900-21	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-03-900-22	Residual Oil		10^3 Gallons Burned	
3-03-900-23	Natural Gas		10^6 Cubic Feet Burned	
3-03-900-24	Process Gas		10^6 Cubic Feet Burned	
Primary Metal Production - Fugitive Emissions[f]				
3-03-888-01	Specify in Comments Field		Tons Product	
3-03-888-02	Specify in Comments Field		Tons Product	
3-03-888-03	Specify in Comments Field		Tons Product	
3-03-888-04	Specify in Comments Field		Tons Product	
3-03-888-05	Specify in Comments Field		Tons Product	

SCC	Process	VOC Lbs/Unit	Units	Notes
Primary Metal Industries: Other Not Classified				
3-03-999-99	- Other Not Classified (Specify in Comments)		Tons Produced	
SECONDARY METAL PRODUCTION - MAJOR GROUPS 33 & 34				
Secondary Aluminum - 3341, 3353, 3354, 3355, 3361, 3411, 3497				
3-04-001-01	- Sweating Furnace		Tons Produced	
3-04-001-02	- Smelting Furnace/Crucible		Tons Metal Produced	
3-04-001-03	- Smelting Furnace/Reverberatory		Tons Metal Produced	
3-04-001-04	- Fluxing (Chlorination)	0.0	Tons of Chlorine Used	
3-04-001-05	- Fluxing (Fluoridation)		Tons Metal Produced	
3-04-001-06	- Degassing	0.0	Tons Metal Produced	
3-04-001-07	- Hot Dross Processing	0.0	Tons Metal Produced	
3-04-001-08	- Crushing/Screening	0.0	Tons Metal Produced	
3-04-001-09	- Burning/Drying		Tons Metal Produced	
3-04-001-10	- Foil Rolling		Tons Produced	
3-04-001-11	- Foil Converting		Tons Produced	
3-04-001-12	- Annealing Furnace		Tons Metal Produced	
3-04-001-13	- Slab Furnace		Tons Metal Produced	
3-04-001-20	- Can Manufacture		Tons Produced	
3-04-001-50	- Rolling/Drawing/Extruding		Tons Produced	
Secondary Copper Smelting and Alloying (Brass/Bronze Melt) - 3341, 3362				
3-04-002-07	- Scrap Dryer (Rotary)	NEG	Tons of Charge	58
3-04-002-08	- Wire Burning (Incinerator)		Tons of Charge	
3-04-002-09	- Sweating Furnace	NEG	Tons of Charge	58
Cupolas				
3-04-002-10	- Charge w/Scrap Copper		Tons of Charge	
3-04-002-11	- Charge w/Insulated Copper Wire	447.0	Tons of Coke-free Charge	84
3-04-002-12	- Charge w/Scrap Copper and Brass		Tons of Charge	
Reverberatory Furnace				
3-04-002-14	- Charge w/Cooper		Tons of Charge	
3-04-002-15	- Charge w/Brass and Bronze		Tons of Charge	
Rotary Furnace				
3-04-002-17	- Charge w/Brass and Bronze		Tons of Charge	
Crucible and Pot Furnaces				
3-04-002-19	- Charge w/Brass and Bronze		Tons of Charge	

SCC	Process	VOC Lbs/Unit	Units	Notes
Electric Arc Furnace				
3-04-002-20 -	Charge w/Copper		Tons of Charge	
3-04-002-21 -	Charge w/Brass and Bronze		Tons of Charge	
Electric Induction Furnace				
3-04-002-23 -	Charge w/Copper		Tons of Charge	
3-04-002-24 -	Charge w/Brass and Bronze		Tons of Charge	
Fugitive Emissions				
3-04-002-30 -	Scrap Metal Pretreatment		Tons of Charge	
3-04-002-31 -	Scrap Dryer		Tons of Charge	
3-04-002-32 -	Wire Incinerator		Tons of Charge	
3-04-002-33 -	Sweating Furnace		Tons of Charge	
3-04-002-34 -	Cupola Furnace		Tons of Charge	
3-04-002-35 -	Reverberatory Furnace		Tons of Charge	
3-04-002-36 -	Rotary Furnace		Tons of Charge	
3-04-002-37 -	Crucible Furnace		Tons of Charge	
3-04-002-38 -	Electric Induction Furnace		Tons of Charge	
3-04-002-39 -	Casting Operations		Tons of Castings Produced	
3-04-002-99 -	Other Not Classified (Specify in Comments)		Tons Produced	
Gray Iron Foundries - 3321				
3-04-003-01 -	Cupola	0.18	Tons Metal Charged	57
3-04-003-02 -	Reverberatory Furnace		Tons Metal Charged	
3-04-003-03 -	Electric Induction Furnace		Tons Metal Charged	
3-04-003-04 -	Electric Arc Furnace	0.18	Tons Metal Charged	
3-04-003-05 -	Annealing Operation		Tons Processed	
3-04-003-10 -	Inoculation	0.005	Tons Inoculated	57
3-04-003-15 -	Charge Handling		Tons Metal Charged	
3-04-003-20 -	Pouring/Casting	0.14	Tons Metal Charged	57
3-04-003-25 -	Castings Cooling		Tons Metal Charged	
3-04-003-31 -	Casting Shakeout	1.2	Tons Metal Charged	57
3-04-003-32 -	Casting Knockout		Tons Sand Handled	
3-04-003-33 -	Shakeout Machine		Tons Sand Handled	
3-04-003-40 -	Castings Grinding/Cleaning	0.0	Tons Metal Charged	
3-04-003-41 -	Casting Cleaning/Tumblers		Tons Castings Cleaned	
3-04-003-42 -	Casting Cleaning/Chippers		Tons Castings Cleaned	
3-04-003-50 -	Sand Grinding/Handling		Tons Sand Handled	
3-04-003-51 -	Core Ovens		Tons Sand Handled	
3-04-003-52 -	Sand Grinding/Handling		Tons Metal Charged	
3-04-003-53 -	Core Ovens		Tons Metal Charged	

SCC	Process	VOC Lbs/Unit	Units	Notes
Gray Iron Foundries - 3321 (Continued)				
3-04-003-54	- Core Ovens		Gallons Core Oil Used	
3-04-003-55	- Sand Dryer		Tons Sand Handled	
3-04-003-56	- Sand Silo		Tons Sand Handled	
3-04-003-57	- Conveyors/Elevators		Tons Sand Handled	
3-04-003-58	- Sand Screens		Tons Sand Handled	
3-04-003-60	- Castings Finishing		Tons Metal Charged	
3-04-003-70	- Shell Core Machine		Tons Cores Produced	
3-04-003-71	- Core Machines/Other		Tons Cores Produced	
3-04-003-98	- Other Not Classified (Specify in Comments)		Gallons	
3-04-003-99	- Other Not Classified (Specify in Comments)		Tons Metal Charged	
Secondary Lead Smelting - 3341, 3369				
3-04-004-01	- Pot Furnace	0.0	Tons Metal Charged	
3-04-004-02	- Reverberatory Furnace	NEG	Tons Metal Charged	58
3-04-004-03	- Blast Furnace (Cupola)	NEG	Tons Metal Charged	58
3-04-004-04	- Rotary Sweating Furnace	NEG	Tons Metal Charged	58
3-04-004-05	- Reverberatory Sweating Furnace	NEG	Tons Metal Charged	58
3-04-004-06	- Pot Furnace Heater: Distillate Oil	NEG	10^3 Gallons Burned	58
3-04-004-07	- Pot Furnace Heater: Natural Gas	NEG	10^6 Cubic Feet Burned	58
3-04-004-08	- Barton Process Reactor (Oxidation Kettle)	0.0	Tons Lead Oxide Produced	
3-04-004-09	- Casting	0.0	Tons of Lead Cast	
3-04-004-10	- Battery Breaking	0.0	Tons Metal Charged	
3-04-004-11	- Scrap Crushing	0.0	Tons Metal Charged	
3-04-004-12	- Sweating Furnace: Fugitive	NEG	Tons Metal Charged	58
3-04-004-13	- Sweating Furnace: Fugitive	NEG	Tons Metal Charged	58
3-04-004-14	- Kettle Refining: Fugitive	NEG	Tons Metal Charged	58
3-04-004-99	- Other Not Classified (Specify in Comments)	NEG	Tons Processed	58
Lead Battery Manufacture - 3691				
3-04-005-05	- Overall Process	0.0	10^3 Batteries Produced	
3-04-005-06	- Grid Casting	0.0	10^3 Batteries Produced	
3-04-005-07	- Paste Mixing	0.0	10^3 Batteries Produced	
3-04-005-08	- Lead Oxide Mill (Baghouse Outlet)	0.0	10^3 Batteries Produced	
3-04-005-09	- Three Process Operation	0.0	10^3 Batteries Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Lead Battery Manufacture - 3691 (Continued)				
3-04-005-10	Lead Reclaiming Furnace	0.0	10^3 Batteries Produced	
3-04-005-11	Small Parts Casting	0.0	10^3 Batteries Produced	
3-04-005-12	Formation	0.0	10^3 Batteries Produced	
3-04-005-99	Other Not Classified (Specify in Comments)	0.0	10^3 Batteries Produced	
Magnesium - 3341				
3-04-006-01	Pot Furnace		Tons Processed	
3-04-006-99	Other Not Classified (Specify in Comments)		Tons Processed	
Steel Foundry - 3324, 3325				
3-04-007-01	Electric Arc Furnace		Tons Processed	
3-04-007-02	Open Hearth Furnace		Tons Processed	
3-04-007-03	Open Hearth Furnace w/Oxygen Lance		Tons Processed	
3-04-007-04	Heat-Treating Furnace		Tons Processed	
3-04-007-05	Electric Induction Furnace	0.0	Tons Processed	
3-04-007-06	Sand Grinding/Handling in Mold & Core Making		Tons Processed	
3-04-007-07	Core Ovens		Tons Processed	
3-04-007-08	Pouring and Casting		Tons Metal Processed	
3-04-007-09	Casting Shakeout		Tons Metal Processed	
3-04-007-10	Casting Knockout		Tons Sand Handled	
3-04-007-11	Castings Cleaning		Tons Metal Processed	
3-04-007-12	Charge Handling		Tons Metal Processed	
3-04-007-13	Castings Cooling		Tons Metal Processed	
3-04-007-14	Shakeout Machine		Tons Sand Handled	
3-04-007-15	Finishing: Specify in Comments		Tons Metal Processed	
3-04-007-16	Sand Grinding and Handling		Tons Metal Processed	
3-04-007-17	Core Ovens		Tons Metal Processed	
3-04-007-18	Core Ovens		Gallons Core Oil Used	
3-04-007-20	Sand Dryer		Tons Sand Handled	
3-04-007-21	Sand Silo		Tons Sand Handled	
3-04-007-22	Muller		Tons Sand Handled	
3-04-007-23	Conveyors/Elevators		Tons Sand Handled	
3-04-007-24	Sand Screens		Tons Sand Handled	
3-04-007-25	Casting Cleaning/Tumblers		Tons Castings Cleaned	
3-04-007-26	Casting Cleaning/Chippers		Tons Castings Cleaned	
3-04-007-30	Shell Core Machine		Tons Cores Produced	
3-04-007-31	Core Machines/Other		Tons Cores Produced	
3-04-007-99	Other Not Classified (Specify in Comments)		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Secondary Zinc Production - 3341				
3-04-008-01	Retort Furnace		Tons Produced	
3-04-008-02	Horizontal Muffle Furnace		Tons Produced	
3-04-008-03	Pot Furnace		Tons Produced	
3-04-008-05	Galvanizing Kettle		Tons Produced	
3-04-008-06	Calcining Kiln		Tons Produced	
3-04-008-07	Concentrate Dryer		Tons Produced	
3-04-008-09	Rotary Sweat Furnace		Tons Produced	
3-04-008-10	Muffle Sweat Furnace		Tons Produced	
3-04-008-11	Electric Resistance Sweat Furnace		Tons Produced	
3-04-008-12	Crushing/Screening of Zinc Residues		Tons Residue	
3-04-008-14	Kettle-Sweat Furnace (Clean Metallic Scrap)		Tons Produced	
3-04-008-18	Reverberatory Sweat Furnace (Clean Metallic Scrap)		Tons Produced	
3-04-008-24	Kettle-Sweat Furnace (General Metallic Scrap)		Tons Produced	
3-04-008-28	Reverberatory Sweat Furnace (General Metallic Scrap)		Tons Produced	
3-04-008-34	Kettle-Sweat Furnace (Residual Scrap)		Tons Produced	
3-04-008-38	Reverberatory Sweat Furnace (Residual Scrap)		Tons Produced	
3-04-008-40	Alloying		Tons Produced	
3-04-008-41	Scrap Melting: Crucible		Tons Produced	
3-04-008-42	Scrap Melting: Reverberatory Furnace		Tons Produced	
3-04-008-43	Scrap Melting: Electric Induction Furnace		Tons Produced	
3-04-008-51	Retort & Muffle Distillation: Pouring		Tons Produced	
3-04-008-52	Retort & Muffle Distillation: Casting		Tons Produced	
3-04-008-53	Graphite Rod Distillation		Tons Produced	
3-04-008-54	Retort Distillation/Oxidation		Tons Zinc Oxide Produced	
3-04-008-55	Muffle Distillation/Oxidation		Tons Zinc Oxide Produced	
3-04-008-61	Reverberatory Sweating		Tons Produced	
3-04-008-62	Rotary Sweating		Tons Produced	
3-04-008-63	Muffle Sweating		Tons Produced	
3-04-008-64	Kettle (Pot) Sweating		Tons Produced	
3-04-008-65	Electric Resistance Sweating		Tons Scrap Processed	
3-04-008-66	Sodium Carbonate Leaching		Tons Produced	
3-04-008-67	Kettle (Pot) Melting Furnace		Tons Produced	
3-04-008-68	Crucible Melting Furnace		Tons Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Secondary Zinc Production - 3341 (Continued)				
3-04-008-69	Reverberatory Melting Furnace		Tons Produced	
3-04-008-70	Electric Induction Melting		Tons Produced	
3-04-008-71	Alloying Retort Distillation		Tons Produced	
3-04-008-72	Retort and Muffle Distillation		Tons Produced	
3-04-008-73	Casting		Tons Produced	
3-04-008-74	Graphite Rod Distillation		Tons Produced	
3-04-008-75	Retort Distillation/Oxidation		Tons Produced	
3-04-008-76	Muffle Distillation/Oxidation		Tons Produced	
3-04-008-77	Retort Reduction		Tons Produced	
3-04-008-99	Other Not Classified (Specify in Comments)		Tons Produced	
Malleable Iron - 3322				
3-04-009-01	Annealing		Tons Metal Charged	
3-04-009-99	Other Not Classified (Specify in Comments)		Tons Metal Charged	
Nickel - 3341				
3-04-010-01	Flux Furnace		Tons Processed	
3-04-010-99	Other Not Classified (Specify in Comments)		Tons Processed	
Furnace Electrode Manufacture - 3624				
3-04-020-01	Calcination		Tons Processed	
3-04-020-02	Mixing	0.0	Tons Processed	
3-04-020-03	Pitch Treating		Tons Processed	
3-04-020-04	Bake Furnaces		Tons Processed	
3-04-020-99	Other Not Classified (Specify in Comments)		Tons Processed	
Metal Heat Treating - 3398				
3-04-022-01	Furnace: General		Tons Metal Processed	
3-04-022-10	Quench Bath		Tons Metal Processed	
Lead Cable Coating - 3357, 3315				
3-04-040-01	General		Tons Lead Processed	
Miscellaneous Casting and Fabricating - 3300 - 3399				
3-04-049-01	Wax Burnout Oven		Tons of Wax Burned	
3-04-050-01	Other Not Classified (Specify in Comments)		Tons Produced	
3-04-050-99	Other Not Classified (Specify in Comments)		Each	

SCC	Process	VOC Lbs/Unit	Units	Notes
	Secondary Metal Production - Fugitive Emissions[f]			
3-04-888-01	Specify in Comments Field		Tons Product	
3-04-888-02	Specify in Comments Field		Tons Product	
3-04-888-03	Specify in Comments Field		Tons Product	
3-04-888-04	Specify in Comments Field		Tons Product	
3-04-888-05	Specify in Comments Field		Tons Product	
	Secondary Metal Production - Fuel Fired Equipment			
	Process Heaters			
3-04-900-01	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-04-900-02	Residual Oil		10^3 Gallons Burned	
3-04-900-03	Natural Gas		10^6 Cubic Feet Burned	
3-04-900-04	Process Gas		10^6 Cubic Feet Burned	
	Incinerators			
3-04-900-011	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-04-900-012	Residual Oil		10^3 Gallons Burned	
3-04-900-013	Natural Gas		10^6 Cubic Feet Burned	
3-04-900-014	Process Gas		10^6 Cubic Feet Burned	
	Flares			
3-04-900-021	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-04-900-022	Residual Oil		10^3 Gallons Burned	
3-04-900-023	Natural Gas		10^6 Cubic Feet Burned	
3-04-900-024	Process Gas		10^6 Cubic Feet Burned	
	Secondary Metal Production - Other Not Classified			
3-04-999-99	Other Not Classified (Specify in Comments)		Tons Processed	
	MINERAL PRODUCTS - MAJOR GROUPS 11, 12, 14, 28, 29, 32, 44			
	Asphalt Roofing Manufacture - 2952			
3-05-001-01	Asphalt Blowing: Saturant	1.46	Tons Asphalt Processed	
3-05-001-02	Asphalt Blowing: Coating	1.86	Tons Asphalt Processed	
3-05-001-03	Felt Saturation: Dipping Only	0.02	Tons Asphalt Shingle	
3-05-001-04	Felt Saturation: Dipping/Spraying	0.03	Tons Asphalt Shingle	
3-05-001-10	Blowing		Tons Saturated Felt	
3-05-001-11	Dipping Only		Tons Saturated Felt	
3-05-001-12	Spraying Only		Tons Saturated Felt	
3-05-001-13	Dipping/Spraying		Tons Saturated Felt	
3-05-001-98	Not Classified (Specify in Comments)		Gallons	

SCC	Process	VOC Lbs/Unit	Units	Notes
Asphaltic Concrete - 2951				
3-05-002-01	Rotary Dryer, Coventional Plant	0.048	Tons Produced	
3-05-002-02	Hot Elevators, Screens, Bins & Mixer		Tons Produced	
3-05-002-03	Storage Piles		Tons Produced	
3-05-002-04	Cold Aggregate Handling		Tons Produced	
3-05-002-05	Drum, Dryer Hot Asphalt Plants	0.0	Tons of Asphalt	
3-05-002-06	Asphalt Heater (Natural Gas)		10^6 Cubic Feet Burned	
3-05-002-07	Asphalt Heater (Residual Oil)		10^3 Gallons Burned	
3-05-002-08	Asphalt Heater (Distillate Oil)		10^3 Gallons Burned	
Brick Manufacturing - 3251				
3-05-003-01	Raw Material Drying		Tons Raw Material	
3-05-003-02	Raw Material Grinding	0.0	Tons Raw Material	
3-05-003-03	Storage of Raw Materials	0.0	Tons Material Stored	
3-05-003-07	Process Calcining		Tons Raw Material	
3-05-003-08	Screening	0.0	Tons Raw Material	
3-05-003-09	Process Blending and Mixing	0.0	Tons Raw Material	
3-05-003-11	Curing and Firing: Gas-Fired Tunnel Kilns	0.02	Tons Produced	
3-05-003-12	Curing and Firing: Oil-Fired Tunnel Kilns	0.1	Tons Brick Produced	
3-05-003-13	Curing and Firing: Coal-Fired Tunnel Kilns	0.6	Tons Produced	
3-05-003-14	Curing and Firing: Gas-Fired Periodic Kilns	0.04	Tons Produced	
3-05-003-15	Curing and Firing: Oil-Fired Periodic Kilns	0.1	Tons Produced	
3-05-003-16	Curing and Firing: Coal-Fired Periodic Kilns	0.9	Tons Produced	
3-05-003-98	Other Not Classified (Specify in Comments)		Gallons	
Calcium Carbide - 2819				
3-05-004-01	Electric Furnace (Hoods & Main Stack)	0.0	Tons Produced	
3-05-004-02	Coke Dryer	0.0	Tons Produced	
3-05-004-03	Furnace Room Vents	0.0	Tons Produced	
3-05-004-04	Tap Fume Vents	0.0	Tons Produced	
3-05-004-05	Primary Secondary/Crushing	0.0	Tons Produced	
3-05-004-06	Circular Charging: Conveyor	0.0	Tons Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Castable Refractory - 3255				
3-05-005-01	- Raw Material Dryer		Tons Feed Material	
3-05-005-02	- Raw Material Crushing/Processing	0.0	Tons Feed Material	
3-05-005-03	- Electric Arc Melt		Tons Feed Material	
3-05-005-04	- Curing Oven		Tons Feed Material	
3-05-005-05	- Molding and Shakeout		Tons Feed Material	
3-05-005-98	- Other Not Classified (Specify in Comments)		Gallons	
3-05-005-99	- Other Not Classified (Specify in Comments)		Tons Feed Material	
Cement Manufacturing - Dry Process - 3241				
3-05-006-06	- Kilns[dd]		Tons Cement Produced	
3-05-006-07	- Raw Material Unloading	0.0	Tons Material Unloaded	
3-05-006-08	- Raw Material Piles	0.0	Tons in Piles	
3-05-006-09	- Primary Crushing	0.0	Tons Processed	
3-05-006-10	- Secondary Crushing	0.0	Tons Processed	
3-05-006-11	- Screening	0.0	Tons Processed	
3-05-006-12	- Raw Material Transfer	0.0	Tons Handled	
3-05-006-13	- Raw Material Grinding & Drying	0.0	Tons Cement Produced	
3-05-006-14	- Clinker Cooler	0.0	Tons Cement Produced	
3-05-006-15	- Clinker Piles	0.0	Tons Cement Produced	
3-05-006-16	- Clinker Transfer	0.0	Tons Cement Produced	
3-05-006-17	- Clinker Grinding	0.0	Tons Cement Produced	
3-05-006-18	- Cement Silos	0.0	Tons Cement Produced	
3-05-006-19	- Cement Load Out	0.0	Tons Cement Produced	
Wet Process - 3241				
3-05-007-06	- Kilns[dd]	0.0	Tons Cement Produced	
3-05-007-07	- Raw Material Unloading	0.0	Tons of Material Unloaded	
3-05-007-08	- Raw Material Piles	0.0	Tons in Piles	
3-05-007-09	- Primary Crushing	0.0	Tons Processed	
3-05-007-10	- Secondary Crushing	0.0	Tons Processed	
3-05-007-11	- Screening	0.0	Tons Processed	
3-05-007-12	- Raw Material Transfer	0.0	Tons Handled	
3-05-007-14	- Clinker Cooler	0.0	Tons Cement Produced	
3-05-007-15	- Clinker Piles	0.0	Tons Cement Produced	
3-05-007-16	- Clinker Transfer	0.0	Tons Cement Produced	
3-05-007-17	- Clinker Grinding	0.0	Tons Cement Produced	
3-05-007-18	- Cement Silo	0.0	Tons Cement Produced	
3-05-007-19	- Cement Loadout	0.0	Tons Cement Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Ceramic Clay Manufacturing - 3261				
3-05-008-01	- Drying		Tons Input to Process	
3-05-008-02	- Grinding		Tons Input to Process	
3-05-008-03	- Storage		Tons Input to Process	
3-05-008-99	- Other Not Classified (Specify in Comments)		Tons Produced	
Clay and Fly Ash Sintering (Low Density Aggregate Manufacture) - 3295)				
3-05-009-01	- Fly Ash Sintering		Tons Finished Product	
3-05-009-02	- Clay/Coke Sintering		Tons Finished Product	
3-05-009-03	- Natural Clay/Shale Sintering		Tons Finished Product	
3-05-009-04	- Raw Clay/Shale Crushing/Screening	0.0	Tons Raw Material	
3-05-009-05	- Raw Clay/Shale Transfer/Conveying	0.0	Tons Raw Material	
3-05-009-06	- Raw Clay/Shale Storage Piles	0.0	Tons Raw Material	
3-05-009-07	- Sintered Clay/Coke Product Crushing and Screening	0.0	Tons Finished Product	
3-05-009-08	- Sintered Clay/Shale Product Crushing and Screening	0.0	Tons Finished Product	
3-05-009-09	- Expanded Shale Clinker Cooling	0.0	Tons Finished Product	
3-05-009-10	- Expanded Shale Storage	0.0	Tons Finished Product	
3-05-009-99	- Other Not Classified (Specify in Comments)		Tons Finished Product	
Coal Cleaning - 1111, 1211[ee]				
Thermal Dryer - 1111, 1211[ee]				
3-05-010-01	- Fluidized Bed	0.1	Tons Coal Dried	
3-05-010-02	- Flash or Suspension		Tons Coal Dried	
3-05-010-03	- Multilouvered		Tons Coal Dried	
3-05-010-04	- Rotary		Tons Coal Dried	
3-05-010-05	- Cascade		Tons Coal Dried	
3-05-010-06	- Continuous Carrier		Tons Coal Dried	
3-05-010-07	- Screen		Tons Coal Dried	
Material Handling - 1111, 1211[ee]				
3-05-010-08	- Unloading	0.0	Tons Shipped	
3-05-010-09	- Raw Coal Storage	0.0	Tons Shipped	
3-05-010-10	- Crushing	0.0	Tons Shipped	
3-05-010-11	- Coal Transfer	0.0	Tons Shipped	
3-05-010-12	- Screening	0.0	Tons Shipped	
3-05-010-13	- Air Tables	0.0	Tons Shipped	
3-05-010-14	- Cleaned Coal Storage	0.0	Tons Shipped	
3-05-010-15	- Loading	0.0	Tons Shipped	
3-05-010-16	- Loading: Clean Coal	0.0	Tons Shipped	
3-05-010-17	- Secondary Crushing	0.0	Tons Shipped	

SCC	Process	VOC Lbs/Unit	Units	Notes
Surface Mining Operations - 1111, 1211[ee]				
3-05-010-21	- Overburden Removal	0.0	Tons Coal Mined	
3-05-010-22	- Drilling/Blasting	0.0	Tons Coal Mined	
3-05-010-23	- Loading	0.0	Tons Coal Mined	
3-05-010-24	- Hauling	0.0	Vehicle-Miles Traveled	
3-05-010-30	- Topsoil Removal	0.0	Tons of Topsoil Removed	
3-05-010-31	- Scrapers: Travel Mode	0.0	Vehicle-Miles by Scrapers	
3-05-010-32	- Topsoil Unloading	0.0	Tons of Topsoil	
3-05-010-33	- Overburden: Drilling	0.0	Holes Drilled	
3-05-010-34	- Coal Seam: Drilling	0.0	Holes Drilled	
3-05-010-35	- Blasting: Coal Overburden	0.0	Blasts	
3-05-010-36	- Dragline: Overburden Removal	0.0	Cubic Yards Overburden	
3-05-010-37	- Truck Loading: Overburden	0.0	Tons Overburden Loaded	
3-05-010-38	- Truck Loading: Coal	0.0	Tons Coal Loaded	
3-05-010-39	- Hauling: Haul Trucks	0.0	Vehicle-Miles by Haul Trucks	
3-05-010-40	- Truck Unloading: End Dump-Coal	0.0	Tons Coal	
3-05-010-41	- Truck Unloading: Bottom Dump-Coal	0.0	Tons Coal	
3-05-010-42	- Truck Unloading: Bottom Dump-Overburden	0.0	Tons Overburden	
3-05-010-43	- Open Storage Pile: Coal	0.0	Acres of Coal Storage Area	
3-05-010-44	- Train Loading: Coal	0.0	Tons of Coal Loaded	
3-05-010-45	- Bulldozing: Overburden	0.0	Bulldozer-Hours of Operation	
3-05-010-46	- Bulldozing: Coal	0.0	Bulldozer-Hours of Operation	
3-05-010-47	- Grading	0.0	Vehicle-Miles by Graders	
3-05-010-48	- Overburden Replacement	0.0	Tons Overburden	
3-05-010-49	- Wind Erosion: Exposed Areas	0.0	Acres of Exposed Area	
3-05-010-50	- Vehicle Traffic: Light/Medium Vehicles	0.0	Vehicle-Miles by Light/Medium Vehicles	
3-05-010-90	- Haul Roads: General	0.0	Tons Coal	
3-05-010-99	- Other Not Classified (Specify in Comments)		Tons Shipped	
Concrete Batching - 3271, 3272, 3273, 3275, 1771, 3292				
3-05-011-01	- General (Non-fugitive)		Cubic Yards Concrete Produced	
3-05-011-12	- Mixing: Wet		Cubic Yards Concrete Produced	
3-05-011-13	- Mixing: Dry		Cubic Yards Concrete Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Concrete Batching - 3271, 3272, 3273, 3275, 1771, 3292				
3-05-011-14	Transferring: Conveyors/Elevators		Cubic Yards Concrete Produced	
3-05-011-15	Storage: Bins/Hoppers		Cubic Yards Concrete Produced	
Concrete Batching - Fugitive Emissions - 3271, 3272, 3273, 3275, 1771, 3292				
3-05-011-06	Transfer of Sand and Aggregate to Elevated Bins	0.0	Tons Produced	
3-05-011-07	Cement Unloading to Storage Bins	0.0	Tons Produced	
3-05-011-08	Weight Hopper Loading of Cement, Sand and Aggregate	0.0	Tons Produced	
3-05-011-09	Mixer Loading of Cement, Sand, and Aggregate	0.0	Tons Produced	
3-05-011-10	Loading of Transit Mix Truck	0.0	Tons Produced	
3-05-011-11	Loading of Dry-Batch Truck	0.0	Tons Produced	
3-05-011-20	Asbestos/Cement Products	0.0	Tons Produced	
3-05-011-99	Other Not Classified (Specify in Comments)		Tons Produced	
Fiberglass Manufacturing - 3229, 3296				
Wool-Type Glass Fiber - 3296				
3-05-012-01	Regenerative Furnace		Tons Material Processed	
3-05-012-02	Recuperative Furnace		Tons Material Processed	
3-05-012-03	Electric Furnace		Tons Material Processed	
3-05-012-04	Forming (Rotary Spun)	7.0	Tons Material Processed	
3-05-012-05	Curing Oven (Rotary Spun)	3.0	Tons Material Processed	
3-05-012-06	Cooling	0.04	Tons Material Processed	
3-05-012-07	Unit Melter Furnace		Tons Material Processed	
3-05-012-08	Forming (Flame Attenuation)	0.3	Tons Material Processed	
3-05-012-09	Curing (Flame Attenuation)	7.0	Tons Material Processed	
Textile-Type Glass Fiber - 3229				
3-05-012-11	Regenerative Furnace	0.0	Tons Material Processed	
3-05-012-12	Recuperative Furnace	0.0	Tons Material Processed	
3-05-012-13	Unit Melter Furnace	0.0	Tons Material Processed	
3-05-012-14	Forming Process	0.0	Tons Material Processed	
3-05-012-15	Curing Oven	0.0	Tons Material Processed	
3-05-012-21	Raw Material Unloading/Conveying	0.0	Tons Raw Material Processed	
3-05-012-22	Raw Material Storage Bins	0.0	Tons Raw Material Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Textile-Type Glass Fiber - 3229 (Continued)				
3-05-012-23 -	Raw Material Mixing/Weighing	0.0	Tons Raw Material Processed	
3-05-012-24 -	Raw Material Crushing/Charging	0.0	Tons Raw Material Processed	
3-05-012-99 -	Other Not Classified (Specify in Comments)		Tons Material Processed	
Frit Manufacture - 2899				
3-05-013-01 -	Rotary Furnace		Tons Charged	
3-05-013-99 -	Other Not Classified (Specify in Comments)		Tons Charged	
Glass Manufacture - 3211, 3221, 3229				
3-05-014-02 -	Container Glass: Melting Furnace	0.2	Tons of Glass Produced	
3-05-014-03 -	Flat Glass: Melting Furnace	0.1	Tons of Glass Produced	
3-05-014-04 -	Pressed and Blown Glass: Melting Furnace	0.3	Tons of Glass Produced	
3-05-014-06 -	Container Glass: Forming & Finishing	8.7	Tons of Glass Produced	
3-05-014-07 -	Flat Glass: Forming & Finishing		Tons of Glass Produced	
3-05-014-08 -	Pressed and Blown Glass: Forming and Finishing	9.0	Tons of Glass Produced	
3-05-014-10 -	Raw Material Handling (All Types of Glass)	0.0	Tons of Glass Produced	
3-05-014-13 -	Cullet Crushing/Grinding	0.0	Tons Cullet Processed	
3-05-014-14 -	Ground Cullet Beading Furnace		Tons Beaded Glass	
3-05-014-15 -	Glass Etching with Hydrofluoric Acid Solution		Gallons Etching Solution Consumed	
Gypsum Manufacture - 3275				
3-05-015-01 -	Rotary Ore Dryer		Tons Product	
3-05-015-02 -	Primary Grinder/Roller Mills		Tons Product	
3-05-015-04 -	Conveying	0.0	Tons Throughput	
3-05-015-05 -	Primary Crushing: Gypsum Ore	0.0	Tons Crude Gypsum Processed	
3-05-015-06 -	Secondary Crushing: Gypsum Ore	0.0	Tons Crude Gypsum Processed	
3-05-015-07 -	Screening: Gypsum Ore	0.0	Tons Crude Gypsum Processed	
3-05-015-08 -	Stockpile: Gypsum Ore	0.0	Tons Crude Gypsum Processed	
3-05-015-09 -	Storage Bins: Gypsum Ore	0.0	Tons Crude Gypsum Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Gypsum Manufacture - 3275 (Continued)				
3-05-015-10	- Storage Bins: Landplaster	0.0	Tons Product	
3-05-015-11	- Continuous Kettle: Calciner		Tons Product	
3-05-015-12	- Flash Calciner		Tons Product	
3-05-015-13	- Impact Mill		Tons Product	
3-05-015-14	- Storage Bins: Stucco	0.0	Tons Product	
3-05-015-15	- Tube/Ball Mills	0.0	Tons Product	
3-05-015-16	- Mixers	0.0	Tons Product	
3-05-015-17	- Bagging	0.0	Tons Product	
3-05-015-18	- Mixers/Conveyor	0.0	Tons Product	
3-05-015-19	- Forming Line	0.0	Tons Product	
3-05-015-20	- Drying Kiln		Tons Product	
3-05-015-21	- End Sawing (8 ft)	0.0	10^3 Sq. Ft. Board Sawed	
3-05-015-22	- End Sawing (12 ft)	0.0	10^3 Sq. Ft. Board Sawed	
Lime Manufacture - 3274				
3-05-016-01	- Primary Crushing	0.0	Tons Limestone Processed	
3-05-016-02	- Secondary Crushing/Screening	0.0	Tons Limestone Processed	
3-05-016-03	- Calcining-Vertical Kiln[dd]		Tons Lime Produced	
3-05-016-04	- Calcining-Rotary Kiln[dd]		Tons Lime Produced	
3-05-016-05	- Calcimatic Kiln[dd]		Tons Lime Produced	
3-05-016-06	- Fluidized Bed Kiln[dd]		Tons Lime Produced	
3-05-016-07	- Raw Material Transfer & Conveying	0.0	Tons Limestone Processed	
3-05-016-08	- Raw Material Unloading	0.0	Tons Limestone Processed	
3-05-016-09	- Hydrator (Atmospheric)	0.0	Tons Hydrated Lime	
3-05-016-10	- Raw Material Storage Piles	0.0	Tons Limestone Processed	
3-05-016-11	- Product Cooler	0.0	Tons Lime Produced	
3-05-016-12	- Pressure Hydrator	0.0	Tons Hydrated Lime Produced	
3-05-016-13	- Lime Silos	0.0	Tons Lime Produced	
3-05-016-14	- Packing/Shipping	0.0	Tons Lime Produced	
3-05-016-15	- Product Transfer and Conveying	0.0	Tons Lime Produced	
3-05-016-16	- Primary Screening	0.0	Tons Limestone Processed	
3-05-016-17	- Multiple Hearth Calciner		Tons Lime Produced	
Mineral Wool - 3296				
3-05-017-01	- Cupola		Tons Charged	
3-05-017-02	- Reverberatory Furnace		Tons Charged	
3-05-017-03	- Blow Chamber		Tons Charged	
3-05-017-04	- Curing Oven		Tons Charged	
3-05-017-05	- Cooler		Tons Charged	
3-05-017-99	- Other Not Classified (Specify in Comments)		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Perlite Manufacture - 3295				
3-05-018-01	- Vertical Furnace		Tons Charged	
3-05-018-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Phosphate Rock - 1475				
3-05-019-01	- Drying		Tons Phosphate Rock	
3-05-019-02	- Grinding	0.0	Tons Phosphate Rock	
3-05-019-03	- Transfer/Storage	0.0	Tons Phosphate Rock	
3-05-019-04	- Open Storage	0.0	Tons Phosphate Rock	
3-05-019-05	- Calcining	0.0	Tons Phosphate Rock	
3-05-019-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Stone Quarrying/Processing - 1411, 1422, 1423, 1429, 1499				
3-05-020-01	- Primary Crushing	0.0	Tons Raw Material	
3-05-020-02	- Secondary Crush/Screen	0.0	Tons Raw Material	
3-05-020-03	- Tertiary Crush/Screen	0.0	Tons Raw Material	
3-05-020-04	- Recrush/Screening	0.0	Tons Processed	
3-05-020-05	- Fines Mill	0.0	Tons Processed	
3-05-020-06	- Miscellaneous Operation Screen/Convey/Handling	0.0	Tons Raw Material	
3-05-020-07	- Open Storage	0.0	Tons Product Stored	
3-05-020-08	- Cut Stone - General	0.0	Tons Processed	
3-05-020-09	- Blasting - General	0.0	Tons Raw Material	
3-05-020-10	- Drilling	0.0	Tons Raw Material	
3-05-020-11	- Hauling	0.0	Vehicle-Miles	
3-05-020-12	- Drying	0.0	Tons Stone Dryed	
3-05-020-13	- Bar Grizzlies	0.0	Tons Processed	
3-05-020-14	- Shaker Screens	0.0	Tons Processed	
3-05-020-15	- Vibrating Screens	0.0	Tons Processed	
3-05-020-16	- Revolving Screens	0.0	Tons Processed	
3-05-020-20	- Drilling	0.0	Feet Drilled	
Salt Mining - 1476				
3-05-021-01	- General	0.0	Tons Mined	
3-05-021-02	- Granulation: Stack Dryer		Tons Salt Granulated	
3-05-021-03	- Filtration: Vacuum Filter		Tons Salt Produced	
3-05-021-04	- Crushing		Tons Salt Handled	
3-05-021-05	- Screening		Tons Salt Handled	
3-05-021-06	- Conveying		Tons Salt Handled	

SCC	Process	VOC Lbs/Unit	Units	Notes
Potash Production - 1474				
3-05-022-01	Mine - Grind/Dry	0.0	Tons Ore	
3-05-022-99	Other Not Classified (Specify in Comments)		Tons Processed	
Magnesium Carbonate - 1459				
3-05-024-01	Mine/Process	0.0	Tons Product	
3-05-024-99	Other Not Classified (Specify in Comments)		Tons Processed	
Sand/Gravel - 1442, 1446				
3-05-025-02	Aggregate Storage	0.0	Tons Product	
3-05-025-03	Material Transfer & Conveying	0.0	Tons Product	
3-05-025-04	Hauling	0.0	Vehicle-Miles	
3-05-025-05	Pile Forming: Stacker	0.0	Tons Product	
3-05-025-06	Bulk Loading	0.0	Tons Product	
3-05-025-07	Storage Piles	0.0	Acres of Storage Area	
3-05-025-08	Dryer		Tons Product Produced	
3-05-025-09	Cooler		Tons Product Produced	
3-05-025-10	Crushing		Tons Product Produced	
3-05-025-11	Screening		Tons Product Produced	
Diatomaceous Earth - 1499, 3295				
3-05-026-01	Handling	0.0	Tons Product	
3-05-026-99	Other Not Classified (Specify in Comments)		Tons Processed	
Ceramic Electric Parts - 3264				
3-05-030-99	Other Not Classified (Specify in Comments)		Tons Processed	
Asbestos Mining - 1499				
3-05-031-01	Surface Blasting	0.0	Tons of Ore	
3-05-031-02	Surface Drilling	0.0	Tons of Ore	
3-05-031-03	Cobbing	0.0	Tons of Ore	
3-05-031-04	Loading	0.0	Tons of Ore	
3-05-031-05	Convey/Haul Asbestos	0.0	Tons of Ore	
3-05-031-06	Convey/Haul Waste	0.0	Tons of Ore	
3-05-031-07	Unloading	0.0	Tons of Ore	
3-05-031-08	Overburden Stripping	0.0	Tons Removed	
3-05-031-09	Ventilation of Process Operations	0.0	Tons of Ore	
3-05-031-10	Stockpiling	0.0	Tons of Ore	
3-05-031-11	Tailing Piles	0.0	Tons of Material	
3-05-031-99	Other Not Classified (Specify in Comments)		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Asbestos Milling - 1499				
3-05-032-01	Crushing	0.0	Tons Processed	
3-05-032-02	Drying	0.0	Tons Processed	
3-05-032-03	Recrushing	0.0	Tons Processed	
3-05-032-04	Screening	0.0	Tons Processed	
3-05-032-05	Fiberizing	0.0	Tons Processed	
3-05-032-06	Bagging	0.0	Tons Processed	
3-05-032-99	Other Not Classified (Specify in Comments)		Tons Processed	
Vermiculite - 1499				
3-05-033-01	General		Tons Product	
Mining and Quarrying of Nonmetallic Minerals, Except Fuels - Specify Material - 1400 - 1499				
3-05-040-01	Open Pit Blasting	0.0	Hundreds of Tons Material	
3-05-040-02	Open Pit Drilling	0.0	Hundreds of Tons Material	
3-05-040-03	Open Pit Cobbing	0.0	Hundreds of Tons Material	
3-05-040-10	Underground Ventilation	0.0	Hundreds of Tons Material	
3-05-040-20	Loading	0.0	Hundreds of Tons Material	
3-05-040-21	Convey/Haul Material	0.0	Hundreds of Tons Material	
3-05-040-22	Convey/Haul Waste	0.0	Hundreds of Tons Material	
3-05-040-23	Unloading	0.0	Hundreds of Tons Material	
3-05-040-24	Stripping	0.0	Hundreds of Tons Material	
3-05-040-25	Stockpile	0.0	Hundreds of Tons Material	
3-05-040-30	Primary Crusher	0.0	Hundreds of Tons Material	
3-05-040-31	Secondary Crusher	0.0	Hundreds of Tons Material	
3-05-040-32	Ore Concentrator	0.0	Hundreds of Tons Material	
3-05-040-33	Ore Dryer	0.0	Hundreds of Tons Material	
3-05-040-34	Screening	0.0	Hundreds of Tons Material	
3-05-040-36	Tailing Piles	0.0	Hundreds of Tons Material	
3-05-040-99	Other Not Classified (Specify in Comments)		Hundreds of Tons Material	
Bulk Materials Elevators (Specify Material Handled in Comments) - 4463				
3-05-100-01	Unloading	0.0	Tons Processed	
3-05-100-02	Loading	0.0	Tons Processed	
3-05-100-03	Removal from Bins	0.0	Tons Processed	
3-05-100-04	Drying	0.0	Tons Processed	
3-05-100-05	Cleaning	0.0	Tons Processed	
3-05-100-06	Elevator Legs (Headhouse)	0.0	Tons Processed	
3-05-100-07	Tripper (Gallery Belt)	0.0	Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Bulk Materials Conveyors - 4463				
3-05-101-01	- Ammonium Sulfate	0.0	Tons Processed	
3-05-101-02	- Cement	0.0	Tons Processed	
3-05-101-03	- Coal	0.0	Tons Processed	
3-05-101-04	- Coke	0.0	Tons Processed	
3-05-101-05	- Limestone	0.0	Tons Processed	
3-05-101-06	- Phosphate Rock	0.0	Tons Processed	
3-05-101-07	- Scrap Metal	0.0	Tons Processed	
3-05-101-08	- Sulfur	0.0	Tons Processed	
3-05-101-96	- Chemical: Specify in Comments	0.0	Tons Processed	
3-05-101-97	- Fertilizer: Specify in Comments	0.0	Tons Processed	
3-05-101-98	- Mineral: Specify in Comments	0.0	Tons Processed	
3-05-101-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Storage Bins - 4463				
3-05-102-01	- Ammonium Sulfate	0.0	Tons Processed	
3-05-102-02	- Cement	0.0	Tons Processed	
3-05-102-03	- Coal	0.0	Tons Processed	
3-05-102-04	- Coke	0.0	Tons Processed	
3-05-102-05	- Limestone	0.0	Tons Processed	
3-05-102-06	- Phosphate Rock	0.0	Tons Processed	
3-05-102-07	- Scrap Metal	0.0	Tons Processed	
3-05-102-08	- Sulfur	0.0	Tons Processed	
3-05-102-96	- Chemical: Specify in Comments	0.0	Tons Processed	
3-05-102-97	- Fertilizer: Specify in Comments	0.0	Tons Processed	
3-05-102-98	- Mineral: Specify in Comments	0.0	Tons Processed	
3-05-102-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Open Stockpiles - 4463				
3-05-103-01	- Ammonium Sulfate	0.0	Tons Processed	
3-05-103-02	- Cement	0.0	Tons Processed	
3-05-103-03	- Coal	0.0	Tons Processed	
3-05-103-04	- Coke	0.0	Tons Processed	
3-05-103-05	- Limestone	0.0	Tons Processed	
3-05-103-06	- Phosphate Rock	0.0	Tons Processed	
3-05-103-07	- Scrap Metal	0.0	Tons Processed	
3-05-103-08	- Sulfur	0.0	Tons Processed	
3-05-103-96	- Chemical: Specify in Comments	0.0	Tons Processed	
3-05-103-97	- Fertilizer: Specify in Comments	0.0	Tons Processed	
3-05-103-98	- Mineral: Specify in Comments	0.0	Tons Processed	
3-05-103-99	- Other Not Classified (Specify in Comments)		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Unloading Operation - 4463				
3-05-104-01	Ammonium Sulfate	0.0	Tons Processed	
3-05-104-02	Cement	0.0	Tons Processed	
3-05-104-03	Coal	0.0	Tons Processed	
3-05-104-04	Coke	0.0	Tons Processed	
3-05-104-05	Limestone	0.0	Tons Processed	
3-05-104-06	Phosphate Rock	0.0	Tons Processed	
3-05-104-07	Scrap Metal	0.0	Tons Processed	
3-05-104-08	Sulfur	0.0	Tons Processed	
3-05-104-96	Chemical: Specify in Comments	0.0	Tons Processed	
3-05-104-97	Fertilizer: Specify in Comments	0.0	Tons Processed	
3-05-104-98	Mineral: Specify in Comments	0.0	Tons Processed	
3-05-104-99	Other Not Classified (Specify in Comments)		Tons Processed	
Loading Operation - 4463				
3-05-105-01	Ammonium Sulfate	0.0	Tons Processed	
3-05-105-02	Cement	0.0	Tons Processed	
3-05-105-03	Coal	0.0	Tons Processed	
3-05-105-04	Coke	0.0	Tons Processed	
3-05-105-05	Limestone	0.0	Tons Processed	
3-05-105-06	Phosphate Rock	0.0	Tons Processed	
3-05-105-07	Scrap Metal	0.0	Tons Processed	
3-05-105-08	Sulfur	0.0	Tons Processed	
3-05-105-96	Chemical: Specify in Comments	0.0	Tons Processed	
3-05-105-97	Fertilizer: Specify in Comments	0.0	Tons Processed	
3-05-105-98	Mineral: Specify in Comments	0.0	Tons Processed	
3-05-105-99	Other Not Classified (Specify in Comments)		Tons Processed	
Mineral Products - Fugitive Emissions[f]				
3-05-888-01	Specify in Comments Field		Tons Product	
3-05-888-02	Specify in Comments Field		Tons Product	
3-05-888-03	Specify in Comments Field		Tons Product	
3-05-888-04	Specify in Comments Field		Tons Product	
3-05-888-05	Specify in Comments Field		Tons Product	
Mineral Products - Fuel Fired Equipment				
Process Heaters				
3-05-900-01	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-05-900-02	Residual Oil		10^3 Gallons Burned	
3-05-900-03	Natural Gas		10^6 Cubic Feet Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Incinerators				
3-05-900-11	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-05-900-12	- Residual Oil		10^3 Gallons Burned	
3-05-900-13	- Natural Gas		10^6 Cubic Feet Burned	
Flares				
3-05-900-21	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-05-900-22	- Residual Oil		10^3 Gallons Burned	
3-05-900-23	- Natural Gas		10^6 Cubic Feet Burned	
Mineral Products: Other Not Classified				
3-05-999-99	- Specify in Comments		Tons Product	
PETROLEUM INDUSTRY - MAJOR GROUP 29[hh]				
Process Heaters - 2911				
3-06-001-03	- Oil Fired	0.3	10^3 Gallons Oil Burned	
3-06-001-04	- Gas Fired	2.8	10^6 Cubic Feet Burned	
3-06-001-05	- Natural Gas-Fired	2.8	10^6 Cubic Feet Burned	
3-06-001-06	- Process Gas-Fired	2.8	10^6 Cubic Feet Burned	
3-06-001-07	- LPG Fired	0.26	10^3 Gallons Burned	
3-06-001-08	- Landfill Gas-Fired		10^6 Cubic Feet Burned	
3-06-001-99	- Other Not Classified		Gallons Heated	
Fluid Catalytic Cracking Units (FCC) - 2911				
3-06-002-01	- Fluid Catalytic Cracking Unit	140.8[ii]	10^3 BBLs. Fresh Feed	
3-06-002-02	- Catalyst Handling System		10^3 BBLs. Fresh Feed	
3-06-003-01	- Thermal Catalytic Cracking Unit	55.7[ii]	10^3 BBLs. Fresh Feed	
Blowdown Systems - 2911				
3-06-004-01	- Blowdown System with Vapor Recovery System with Flaring	0.8	10^3 BBLs. Refinery Feed	
3-06-004-02	- Blowdown System without Controls	580.0	10^3 BBLs Refinery Feed	
Fugitive Hydrocarbon Emissions From Petroleum Refining - 2911				
3-06-005-03	- Process Drains and Waste Water Separators	5.0	10^3 Gallons Waste Water	
3-06-005-04	- Process Drains and Waste Water Separators	200.0	10^3 BBLs Refinery Feed	
3-06-005-05	- Waste Water Treatment Plant Excluding Separator	0.04	10^3 Gallons Waste Water	98
3-06-005-06	- Waste Water Treatment Plant Excluding Separator	0.77	10^3 BBLs. Refinery Feed	99

SCC	Process	VOC Lbs/Unit	Units	Notes
Vacuum Distillation Column Condensors - 2911				
3-06-006-02	- Vacuum Distillation Column Condensor	50.0	10^3 BBLs. Vacuum Feed	
3-06-006-03	- Vacuum Distillation Column Condensor	18.0	10^3 BBLs. Refinery Feed	
Cooling Towers - 2911				
3-06-007-01	- Cooling Towers	6.0	10^6 Gallons Cooling Water	
3-06-007-02	- Cooling Towers	10.0	10^3 BBLs. Refinery Feed	
Fugitive Hydrocarbon Emissions From Petroleum Refining - 2911				
3-06-008-01	- Pipeline Valves and Flanges	16.3	10^3 BBLs. Refinery Feed	
3-06-008-02	- Vessel Relief Valves	2.9	10^3 BBLs. Refinery Feed	
3-06-008-03	- Pump Seals (Without Controls)	4.1	10^3 BBLs. Refinery Feed	
3-06-008-04	- Compressor Seals	3.7	10^3 BBLs. Refinery Feed	
3-06-008-05	- Miscellaneous: Sampling/Non-Asphalt Blowing, Purging, etc.	10.0	10^3 BBLs. Refinery Feed	
3-06-008-06	- Pump Seals (With Controls)	4.1	10^3 BBLs. Refinery Feed	
3-06-008-07	- Blind Changing	0.3	10^3 BBLs. Refinery Feed	
Pipeline Valves - 2911[jj]				
3-06-008-11	- Gas Streams	516.84	Valves in Operation	
3-06-008-12	- Light Liquid/Gas Stream	210.24	Valves in Operation	
3-06-008-13	- Heavy Liquid Stream	4.38	Valves in Operation	
3-06-008-14	- Hydrogen Streams	157.68	Valves in Operation	
3-06-008-15	- Open-ended Valves (All Streams)	43.8	Valves in Operation	
3-06-008-16	- Flanges (All Streams)	4.9	Valves in Operation	
3-06-008-17	- Pump Seals (Liquid/Gas Stream)	2190.0	Seals in Operation	
3-06-008-18	- Pump Seals (Heavy Liquid Stream)	402.96	Seals in Operation	
3-06-008-19	- Compressor Seals (Gas Streams)	12264.0	Seals in Operation	
3-06-008-20	- Compressor Seals (Heavy Liquid Stream)	963.6	Seals in Operation	
3-06-008-21	- Drains (All Streams)	613.2	Drains in Operation	
3-06-008-22	- Vessel Relief Valves (All Streams)	3153.6	Valves in Operation	
Flares - 2900 - 2999				
3-06-009-01	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-06-009-02	- Residual Oil		10^3 Gallons Burned	
3-06-009-03	- Natural Gas		10^6 Cubic Feet Burned	
3-06-009-04	- Process Gas		10^6 Cubic Feet Burned	
Sludge Convertor - 2999				
3-06-010-01	- General		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Asphalt Blowing - 2911				
3-06-011-01	Asphalt Blowing	60.0	Tons of Asphalt	
Fluid Coking Units - 2911				
3-06-012-01	Fluid Coking Units		10^3 BBLs. Fresh Feed	
Petroleum Coke Calcining - 2911				
3-06-014-01	Coke Calciner		Tons Raw Coke	
Bauxite Burning				
3-06-015-99	Other Not Classified (Specify in Comments)		Tons Bauxite Used	
Incinerators - 2900 - 2999				
3-06-099-11	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-06-099-12	Residual Oil		10^3 Gallons Burned	
3-06-099-13	Natural Gas		10^6 Cubic Feet Burned	
3-06-099-04	Process Gas		10^6 Cubic Feet Burned	
Lube Oil Refining - 2922				
3-06-100-01	General		10^3 BBL. Lube Oil	
Petroleum Industry - Fugitive Emissions[f]				
3-06-888-01	Specify in Comments Field		10^3 BBL. Refinery Feed	
3-06-888-02	Specify in Comments Field		10^3 BBL. Refinery Feed	
3-06-888-03	Specify in Comments Field		10^3 BBL. Refinery Feed	
3-06-888-04	Specify in Comments Field		10^3 BBL. Refinery Feed	
3-06-888-05	Specify in Comments Field		10^3 BBL. Refinery Feed	
PULP AND PAPER INDUSTRY - MAJOR GROUPS 24, 25, 26, 27				
Sulfate (Kraft) Pulping - 2611, 2621, 2631 (For Bark Boilers, See Industrial Boilers)				
3-07-001-01	Digester Relief & Blow Tank		Air-Dry Tons Unbleached Pulp	
3-07-001-02	Washers/Screens		Air-Dry Tons Unbleached Pulp	
3-07-001-03	Multi-Effect Evaporator		Air-Dry Tons Unbleached Pulp	
3-07-001-04	Recovery Furnace/Direct Contact Evaporator		Air-Dry Tons Unbleached Pulp	
3-07-001-05	Smelt Dissolving Tank		Air-Dry Tons Unbleached Pulp	

SCC	Process	VOC Lbs/Unit	Units	Notes
Sulfate (Kraft) Pulping - 2611, 2621, 2631 (Continued)				
3-07-001-06	- Lime Kiln		Air-Dry Tons Unbleached Pulp	
3-07-001-07	- Turpentine Condenser		Air-Dry Tons Unbleached Pulp	
3-07-001-08	- Fluid Bed Calciner		Air-Dry Tons Unbleached Pulp	
3-07-001-09	- Liquor Oxidation Tower		Air-Dry Tons Unbleached Pulp	
3-07-001-10	- Recovery Furnace/Indirect Contact Evaporator		Air-Dry Tons Unbleached Pulp	
3-07-001-99	- Other Not Classified (Specify in Comments)		Air-Dry Tons Unbleached Pulp	
Sulfite Pulping - 2611, 2621, 2631				
3-07-002-03	- Digester/Blow Pit/Dump Tank (All Bases Except Ca)		Air-Dry Tons Unbleached Pulp	
3-07-002-11	- Digester/Blow Pit/Dump Tank (Ca)		Air-Dry Tons Unbleached Pulp	
3-07-002-12	- Digester/Blow Pit/Dump Tank (MgO with Recovery System)		Air-Dry Tons Unbleached Pulp	
3-07-002-13	- Digester/Blow Pit/Dump Tank[kk] (MgO w/Process Change & Scrubber)		Air-Dry Tons Unbleached Pulp	
3-07-002-14	- Digester/Blow Pit/Dump Tank[kk] (NH_3 w/Process Change and Scrubber)		Air-Dry Tons Unbleached Pulp	
3-07-002-15	- Digester/Blow Pit/Dump Tank[kk] (Na w/Process Change and Scrubber)		Air-Dry Tons Unbleached Pulp	
3-07-002-21	- Recovery System (MgO)		Air-Dry Tons Unbleached Pulp	
3-07-002-22	- Recovery System (NH_3)		Air-Dry Tons Unbleached Pulp	
3-07-002-23	- Recovery System (Na)		Air-Dry Tons Unbleached Pulp	
3-07-002-31	- Acid Plant (NH_3)		Air-Dry Tons Unbleached Pulp	
3-07-002-32	- Acid Plant (Na)		Air-Dry Tons Unbleached Pulp	
3-07-002-33	- Acid Plant (Ca)		Air-Dry Tons Unbleached Pulp	
3-07-002-34	- Other Misc. Sources: Knotters/ Washers/Screens, etc.		Air-Dry Tons Unbleached Pulp	

SCC	Process	VOC Lbs/Unit	Units	Notes
Neutral Sulfite Semichemical Pulping - 2611, 2621, 2531 (For Bark Boilers, See Industrial Boilers)				
3-07-003-01	Digester/Dump Tank/Blow Pit		Air-Dry Tons Unbleached Pulp	
3-07-003-02	Evaporator		Air-Dry Tons Unbleached Pulp	
3-07-003-03	Fluid Bed Reactor		Air-Dry Tons Unbleached Pulp	
3-07-003-04	Sulfur Burner/Absorbers		Air-Dry Tons Unbleached Pulp	
Pulpboard Manufacture - 2631, 2661				
3-07-004-01	Paperboard: General		Tons Finished Product	
3-07-004-02	Fiberboard: General		Tons Finished Product	
Wood Pressure Treating - 2491				
3-07-005-01	Creosote		Tons Wood Treated	
3-07-005-97	Other Not Classified (Specify in Comments)		10^3 Cubic Feet	
3-07-005-98	Other Not Classified (Specify in Comments)		10^3 Board Feet	
3-07-005-99	Other Not Classified (Specify in Comments)		Tons Wood Treated	
Plywood/Particleboard Operations - 2435, 2436, 2492				
3-07-007-01	General: Not Classified	1.52	10^4 Sq. Ft. 3/8" Plywood	
3-07-007-02	Sanding Operations	0.0	Tons Processed	
3-07-007-03	Particleboard Drying	0.0	Tons Processed	
3-07-007-04	Waferboard Dryer		10^4 Lbs. Wafers/Chips Dried	
3-07-007-05	Hardboard: Coe Dryer		Tons of Dry Product	
3-07-007-06	Hardboard: Predryer		Tons of Dry Product	
3-07-007-07	Hardboard: Pressing		Tons of Dry Product	
3-07-007-08	Hardboard: Tempering		Tons of Dry Product	
3-07-007-09	Hardboard: Bake Oven		Tons of Product	
3-07-007-11	Fir-Sapwood-Steam Fired	0.45	10^4 Sq. Ft. 3/8" Plywood	
3-07-007-12	Fir-Sapwood-Gas Fired	7.53	10^4 Sq. Ft. 3/8" Plywood	
3-07-007-13	Fir-Heartwood	1.3	10^4 Sq. Ft. 3/8" Plywood	
3-07-007-14	Larch	0.19	10^4 Sq. Ft. 3/8" Plywood	
3-07-007-15	Southern Pine	2.94	10^4 Sq. Ft. 3/8" Plywood	
3-07-007-98	Other Not Classified (Specify in Comments)		10^3 Board Feet	
3-07-007-99	Other Not Classified (Specify in Comments)		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Sawmill Operations - 2421, 2426, 2429				
3-07-008-01	- Log Debarking		Tons of Logs Processed	
3-07-008-02	- Log Sawing		Tons of Logs Processed	
3-07-008-03	- Sawdust Pile Handling		Tons of Sawdust	
3-07-008-04	- Sawing: Cyclone Exhaust	0.0	SCFM Average Airflow	
3-07-008-05	- Planing/Trimming: Cyclone Exhaust	0.0	SCFM Average Airflow	
3-07-008-06	- Sanding: Cyclone Exhaust	0.0	SCFM Average Airflow	
3-07-008-07	- Sanderdust: Cyclone Exhaust	0.0	Hours of Operation	
3-07-008-08	- Other Cyclones: Exhaust	0.0	Hours of Operation	
3-07-008-96	- Other Not Classified (Specify in Comments)		10^3 Cubic Feet	
3-07-008-97	- Other Not Classified (Specify in Comments)		Gallons	
3-07-008-98	- Other Not Classified (Specify in Comments)		10^3 Board Feet	
3-07-008-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Paper Coating & Glazing - 2641, 2642, 2643, 2651, 2654, 2655, 2661				
3-07-011-99	- Extrusion Coating Line (Applications of solvent free resin or wax)		Tons Resin/Wax Consumed	
Miscellaneous Paper Products - 2649				
3-07-013-01	- Shredding Newspaper for Insulation Manufacture		Tons Newspaper Shredded	
3-07-013-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Furniture Manufacturing - 2500 - 2599^{mm}				
3-07-020-98	- Other Not Classified (Specify in Comments)		10^3 Board Feet	
3-07-020-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Miscellaneous Woodworking Operations - 2421, 2426, 2429, 2431, 2434, 2439^{mm}				
3-07-030-01	- Wood Waste Storage Bin Vent	0.0	Tons Wood Waste	
3-07-030-02	- Wood Waste Storage Bin Loadout	0.0	Tons Wood Waste	
3-07-030-96	- Sanding/Planing Operations (Specify in Comments)	0.0	10^3 Square Feet	
3-07-030-97	- Sanding/Planing Operations (Specify in Comments)	0.0	Each	
3-07-030-98	- Sanding/Planing Operations (Specify in Comments)	0.0	10^3 Board Feet	
3-07-030-98	- Sanding/Planing Operations (Specify in Comments)	0.0	Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Wood Products - Fugitive Emissions[f]				
3-07-888-01	- Specify in Comments Field		Tons Product	
3-07-888-02	- Specify in Comments Field		Tons Product	
3-07-888-03	- Specify in Comments Field		Tons Product	
3-07-888-04	- Specify in Comments Field		Tons Product	
3-07-888-05	- Specify in Comments Field		Tons Product	
3-07-888-98	- Specify in Comments Field		10^3 Board Feet	
Wood Products - Fuel Fired Equipment				
Process Heaters				
3-07-900-01	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-07-900-02	- Residual Oil		10^3 Gallons Burned	
3-07-900-03	- Natural Gas		10^6 Cubic Feet Burned	
Incinerators				
3-07-900-11	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-07-900-12	- Residual Oil		10^3 Gallons Burned	
3-07-900-13	- Natural Gas		10^6 Cubic Feet Burned	
Flares				
3-07-900-21	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-07-900-22	- Residual Oil		10^3 Gallons Burned	
3-07-900-23	- Natural Gas		10^6 Cubic Feet Burned	
Wood Products: Other Not Classified				
3-07-999-98	- Specify in Comments		10^3 Board Feet	
RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS - MAJOR GROUP 30 & 75				
Tire Manufacturing - 3011[nn]				
3-08-001-01	- Underthread & Sidewall Cementing	208.5[d]	10^3 Tires Produced	
3-08-001-02	- Bead Dipping	18.0[d]	10^3 Tires Produced	
3-08-001-03	- Bead Swabbing		10^3 Tires Produced	
3-08-001-04	- Tire Building	72.75[d]	10^3 Tires Produced	
3-08-001-05	- Tread End Cementing	33.0[d]	10^3 Tires Produced	
3-08-001-06	- Green Tire Spraying	220.5[d]	10^3 Tires Produced	
3-08-001-07	- Tire Curing	4.4[d]	10^3 Tires Produced	
3-08-001-08	- Solvent Mixing		Tons Solvent	
3-08-001-09	- Solvent Storage		Tons Solvent	
3-08-001-20	- Undertread & Sidewall Cementing		Tons Solvent Used	
3-08-001-21	- Tread End Cementing		Tons Solvent Used	
3-08-001-22	- Bead Dipping		Tons Solvent Used	
3-08-001-23	- Green Tire Spraying		Tons Solvent Used	

SCC	Process	VOC Lbs/Unit	Units	Notes
Tire Manufacturing - 3011 (Continued)[nn]				
3-08-001-97	Other Not Classified (Specify in Comments)		Each	
3-08-001-98	Other Not Classified (Specify in Comments)		Gallons	
3-08-001-99	Other Not Classified (Specify in Comments)		Tons Product	
Tire Retreading - 7534				
3-08-005-01	Tire Buffing Machines		Tires Processed	
Other Fabricated Rubber Products - 3021, 3031, 3041, 3069				
3-08-006-99	Other Not Classified (Specify in Comments)	0.03	Tons Product	7
Fabricated Plastics Products - 3079				
3-08-007-01	Plastics Machining (Drilling, Sanding, Sawing, etc.)		Tons Processed	
3-08-007-02	Mold Release		Tons Product	
3-08-007-03	Solvent Consumption	1500	Tons Solvent	3
3-08-007-04	Adhesive Consumption		Tons Adhesive	
3-08-007-05	Wax Burnout Oven	0.0	Tons of Wax Burned	3
Fiberglass Resin Products				
3-08-007-20	General		Tons Produced	
3-08-007-21	Gel Coat-Roll On	150	Tons Coating Applied	7
3-08-007-22	Gel Coat-Spray On	182	Tons Coating Applied	3
3-08-007-23	General-Roll On		Tons Coating Applied	
3-08-007-24	Resin-General-Spray On			
Fabricated Plastics Products - 3079				
3-08-007-99	Other Not Classified (Specify in Comments)	118	Tons Product	61
Rubber & Miscellaneous Plastics Products - Fuel Fired Equipment				
Process Heaters				
3-08-900-01	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-08-900-02	Residual Oil		10^3 Gallons Burned	
3-08-900-03	Natural Gas		10^6 Cubic Feet Burned	
Incinerators				
3-08-900-11	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-08-900-12	Residual Oil		10^3 Gallons Burned	
3-08-900-13	Natural Gas		10^6 Cubic Feet Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Flares				
3-08-900-21	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-08-900-22	Residual Oil		10^3 Gallons Burned	
3-08-900-23	Natural Gas		10^6 Cubic Feet Burned	
Rubber and Plastics: Other Not Classified				
3-08-999-99	Specify in Comments		Tons Processed	
FABRICATED METAL PRODUCTS - MAJOR GROUP 34 & 50				
General Processes				
3-09-001-98	Other Not Classified (Specify in Comments)		Gallons	
3-09-001-99	Other Not Classified (Specify in Comments)		Tons Processed	
Abrasive Blasting of Metal Parts				
3-09-002-01	General	0.0	Tons Abrasive Consumed	
3-09-002-02	Sand Abrasive	0.0	Tons Abrasive Consumed	
3-09-002-03	Slag Abrasive	0.0	Tons Abrasive Consumed	
3-09-002-04	Garnet Abrasive	0.0	Tons Abrasive Consumed	
3-09-002-05	Steel Grit Abrasive	0.0	Tons Abrasive Consumed	
3-09-002-06	Walnut Shell Abrasive	0.0	Tons Abrasive Consumed	
3-09-002-07	Shotblast w/air	0.0	Tons Shot Consumed	
3-09-002-08	Shotblast w/o air	0.0	Tons Shot Consumed	
3-09-002-98	General		Linear Feet	
3-09-002-99	General	0.0	Each	
Abrasive Cleaning of Metal Parts				
3-09-003-01	Brush Cleaning		Tons Abrasive Consumed	
3-09-003-02	Tumble Cleaning		Tons Abrasive Consumed	
3-09-003-03	Polishing		Tons Abrasive Consumed	
3-09-003-04	Buffing		Tons Abrasive Consumed	
Electroplating Operations - 3471				
3-09-010-01	General: Entire Process	0.0	Square Feet of Product Plated	3
3-09-010-98	Other Not Classified (Specify in Comments)		Gallons	

SCC	Process	VOC Lbs/Unit	Units	Notes
Conversion Coating of Metal Products - 3471				
3-09-011-01	Alkaline Cleaning Bath		Tons Processed	
3-09-011-02	Acid Cleaning Bath (Pickling)		Tons Processed	
3-09-011-03	Anodizing Kettle		Tons Processed	
3-09-011-04	Rinsing/Finishing		Tons Processed	
3-09-011-99	Other Not Classified (Specify in Comments)		Gallons	
Chemical Milling of Metal Parts - 3471				
3-09-015-01	Milling Tank	0.0	Tons Processed	3
Metal Pipe Coating with Asphalt/Coal Tar - 3479				
3-09-016-01	Asphalt Dipping		Tons Pipe Processed	
3-09-016-02	Pipe Spinning		Tons Pipe Processed	
3-09-016-03	Pipe Wrapping		Tons Pipe Processed	
3-09-016-04	Coal Tar/Asphalt Melting Kettle	0.0	Tons Coating Melted	3
Drum Cleaning/Reclamation - 5085				
3-09-025-01	Drum Burning Furnace	0.002	Drums Burned	
Metal Deposition Processes				
3-09-040-01	Metallizing (Wire Atomization & Spraying)		Tons Sprayed Metal Consumed	
3-09-040-10	Thermal Spraying of Powdered Metal		Tons Sprayed Metal Consumed	
3-09-040-20	Plasma Arc Spraying of Powdered Metal		Tons Sprayed Metal Consumed	
Porcelain Enamel and Ceramic Glaze Spraying - 3431				
3-09-060-01	Spray Booth		Gallons Wet Slurry Sprayed	
3-09-060-99	Spray Booth		Tons Processed	
Fabricated Metals - Fugitive Emissions[f]				
3-09-888-01	Specify in Comments Field		Tons Product	
3-09-888-02	Specify in Comments Field		Tons Product	
3-09-888-03	Specify in Comments Field		Tons Product	
3-09-888-04	Specify in Comments Field		Tons Product	
3-09-888-05	Specify in Comments Field		Tons Product	
Fabricated Metal Products - Fuel Fired Equipment Process Heaters				
3-09-900-01	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-09-900-02	Residual Oil		10^3 Gallons Burned	
3-09-900-03	Natural Gas		10^6 Cubic Feet Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Incinerators				
3-09-900-11	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-09-900-12	- Residual Oil		10^3 Gallons Burned	
3-09-900-13	- Natural Gas		10^6 Cubic Feet Burned	
Flares				
3-09-900-21	- Distillate Oil (No. 2)		10^3 Gallons Burned	
3-09-900-22	- Residual Oil		10^3 Gallons Burned	
3-09-900-23	- Natural Gas		10^6 Cubic Feet Burned	
Fabricated Metal Products: Other Not Classified				
3-09-999-97	- Other Not Classified (Specify in Comments)		10^3 Pieces Processed	
3-09-999-98	- Other Not Classified (Specify in Comments)		10^6 Pieces Processed	
3-09-999-99	- Other Not Classified (Specify in Comments)		Tons Processed	
OIL & GAS PRODUCTION - MAJOR GROUP 13				
Crude Oil Production - 1311				
3-10-001-01	- Complete Well: Fugitive Emissions	396	Wells/Year in Operation	3
3-10-001-02	- Miscellaneous Wells: General	280	Wells/Year in Operation	3
3-10-001-03	- Wells-Rod Pumps	455	Wells/Year in Operation	3
3-10-001-04	- Crude Oil Sumps	8.7	Sq. Ft. Sump Area/Year	62
3-10-001-05	- Crude Oil Pits		Sq. Ft. Pit Area/Year	
3-10-001-99	- Processing Operations: Not Classified (Specify in Comments)		10^3 BBLs. Produced	
Natural Gas Production - 1311				
3-10-002-01	- Gas Sweeting (Amine Process) (Smokeless Flares/Tail Gas Incinerators)	0.0	10^6 Cubic Feet of Sour Gas Processed	3
3-10-002-02	- Gas Stripping Operations		10^6 Cubic Feet of Gas Produced	
3-10-002-03	- Compressors	6.0	10^6 Cubic Feet of Gas Produced	63
3-10-002-04	- Wells	35	10^6 Cubic Feet of Gas Produced	7
3-10-002-05	- Flares		10^6 Cubic Feet of Gas Produced	
3-10-002-06	- Gas Lift		10^6 Cubic Feet of Gas Produced	
3-10-002-99	- Other Not Classified (Specify in Comments)		10^6 Cubic Feet of Gas Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Oil & Gas Production - Fuel Fired Equipment				
Process Heaters				
3-10-004-01	Distillate Oil	0.20	10^3 Gallons Burned	
3-10-004-02	Residual Oil	0.28	10^3 Gallons Burned	
3-10-004-03	Crude Oil	0.28	10^3 Gallons Burned	
3-10-004-04	Natural Gas	2.8	10^6 Cubic Feet Burned	
3-10-004-05	Process Gas	2.8	10^6 Cubic Feet Burned	
Steam Generators				
3-10-004-11	Distillate Oil	0.20	10^3 Gallons Burned	
3-10-004-12	Residual Oil	0.28	10^3 Gallons Burned	
3-10-004-13	Crude Oil	0.28	10^3 Gallons Burned	
3-10-004-14	Natural Gas	2.8	10^6 Cubic Feet Burned	
3-10-004-15	Process Gas	2.8	10^6 Cubic Feet Burned	
Oil & Gas Production - Fugitive Emissions[f]				
3-10-888-01	Specify in Comments Field*		Lbs/Year	
3-10-888-02	Specify in Comments Field*		Lbs/Year	
3-10-888-03	Specify in Comments Field*		Lbs/Year	
3-10-888-04	Specify in Comments Field*		Lbs/Year	
3-10-888-05	Specify in Comments Field*		Lbs/Year	
BUILDING CONSTRUCTION - MAJOR GROUP 15				
Construction: Building Contractors				
3-11-001-99	Other Not Classified (Specify in Comments)		Acres of Construction Activity	
Construction: Special Trade Contract				
3-11-002-99	Other Not Classified (Specify in Comments)		Acres of Construction Activity	
MACHINERY, MISCELLANEOUS - MAJOR GROUP 35				
Miscellaneous Machinery				
3-12-999-99	Other Not Classified (Specify in Comments)		Tons Processed	
ELECTRICAL EQUIPMENT - MAJOR GROUP 76				
Electrical Windings Reclamation - 7694				
3-13-070-01	Single Chamber Incinerator/Oven		Tons Charged	
3-13-070-02	Multiple Chamber Incinerator/Oven		Tons Charged	

*Note that fugitive emissions are reported in units of pounds/year rather than lbs/ton product as in the NEDS Source Classification Codes and Emission Factor Listing dated October 1985.

SCC	Process	VOC Lbs/Unit	Units	Notes
Electrical Equipment - Fuel Fired Equipment				
Process Heaters				
3-13-900-01	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-13-900-02	Residual Oil		10^3 Gallons Burned	
3-13-900-03	Natural Gas		10^6 Cubic Feet Burned	
Miscellaneous Electrical Equipment				
3-13-999-99	Other Not Classified (Specify in Comments)		Tons Processed	
TRANSPORTATION EQUIPMENT - MAJOR GROUP 37, 50, 75				
Automobile/Truck Assembly Operations - 3711, 3713				
3-14-009-01	Solder Joint Grinding	0.0	Number of Vehicles Processed	
Brake Shoe Debonding - 7539				
3-14-010-01	Single Chamber Incinerator		Tons Charged	
3-14-010-02	Multiple Chamber Incinerator		Tons Charged	
Auto Body Shredding - 5093				
3-14-011-01	Primary Metal Recovery Line		Tons Scrap Processed	
3-14-011-02	Secondary Metal Recovery Line		Tons Scrap Processed	
Miscellaneous Transportation Equipment				
3-14-999-99	Other Not Classified (Specify in Comments)		Tons Processed	
PHOTOGRAPHIC EQUIPMENT - MAJOR GROUP 38				
Photocopying Equipment Manufacture - 3861				
3-15-010-01	Resin Transfer/Storage		10^3 Pounds Resin	
3-15-010-02	Toner Classification		10^3 Pounds Toner	
3-15-010-03	Toner (Carbon Black) Grinding		10^3 Pounds Toner	
HEALTH SERVICES - MAJOR GROUP 80				
Hospitals - 8062				
3-15-020-01	Sterilization w/Ethylene Oxide	2000	Tons Ethylene Oxide Consumed	64

SCC	Process	VOC Lbs/Unit	Units	Notes
LEATHER AND LEATHER PRODUCTS - MAJOR GROUP 31				
Leather and Leather Products - 3111 - 3199				
3-20-999-97	- Other Not Classified (Specify in Comments)		10^3 Square Feet	
3-20-999-98	- Other Not Classified (Specify in Comments)		Gallons	
3-20-999-99	- Other Not Classified (Specify in Comments)		Tons Processed	
TEXTILE PRODUCTS - MAJOR GROUP 22 & 30				
Miscellaneous General Fabric Operations - 2261, 2262, 2281-2284, 2291, 2294, 2297, 2299				
3-30-001-01	- Yarn Preparation/Bleaching		Tons Fabric Processed	
3-30-001-02	- Printing		Tons Fabric Processed	
3-30-001-03	- Polyester Thread Production		Tons Fabric Processed	
3-30-001-04	- Tenter Frames: Heat Setting		Tons Fabric Processed	
3-30-001-05	- Carding		Tons Fabric Processed	
3-30-001-98	- Other Not Classified (Specify in Comments)		10^3 Feet	
3-30-001-99	- Other Not Classified (Specify in Comments)		Tons Fabric Processed	
Rubberized Fabric - 3069, 2241				
3-30-002-01	- Impregnation		Tons Processed	
3-30-002-02	- Wet Coating		Tons Processed	
3-30-002-03	- Hot Melt Coating		Tons Processed	
3-30-002-98	- Other Not Classified (Specify in Comments)		Gallons	
3-30-002-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Carpet Operations - 2271, 2272, 2279				
3-30-003-99	- Other Not Classified (Specify in Comments)		Tons Processed	
Fabric Finishing - 2261, 2262, 2269 (Shrink Proofing, Water Proofing, Anti Wrinkling, Sizing, etc.)				
3-30-004-99	- Other Not Classified (Specify in Comments)		Tons Fabric Processed	
3-30-005-99	- Other Not Classified (Specify in Comments)		Items Produced	

SCC	Process	VOC Lbs/Unit	Units	Notes
Textile Products - Fugitive Emissions[f]				
3-30-888-01	Specify in Comments Field*		Lbs/Year	
3-30-888-02	Specify in Comments Field*		Lbs/Year	
3-30-888-03	Specify in Comments Field*		Lbs/Year	
3-30-888-04	Specify in Comments Field*		Lbs/Year	
3-30-888-05	Specify in Comments Field*		Lbs/Year	
PRINTING AND PUBLISHING - TYPESETTING - MAJOR GROUP 27				
Typesetting (Lead Remelting) - 2791				
3-60-001-01	Remelting (Lead Emissions Only)		Tons Melted	
IN-PROCESS FUEL USE[qq]				
Anthracite Coal				
3-90-001-99	General	0.0	Tons Burned	
Bituminous Coal				
3-90-002-01	Cement Kiln/Dryer	0.0	Tons Burned	
3-90-002-03	Lime Kiln	0.0	Tons Burned	
3-90-002-99	General	0.0	Tons Burned	
Lignite				
3-90-003-99	General	0.0	Tons Burned	
Residual Oil				
3-90-004-02	Cement Kiln/Dryer	0.0	10^3 Gallons Burned	
3-90-004-03	Lime Kiln	0.0	10^3 Gallons Burned	
3-90-004-99	General	0.0	10^3 Gallons Burned	
Distillate Oil				
3-90-005-02	Cement Kiln/Dryer	0.0	10^3 Gallons Burned	
3-90-005-03	Lime Kiln	0.0	10^3 Gallons Burned	
3-90-005-98	Grade 4 Oil: General	0.0	10^3 Gallons Burned	
3-90-005-99	General	0.0	10^3 Gallons Burned	
Natural Gas				
3-90-006-02	Cement Kiln/Dryer	0.0	10^6 Cubic Feed Burned	
3-90-006-03	Lime Kiln	0.0	10^6 Cubic Feed Burned	
3-90-006-99	General	0.0	10^6 Cubic Feed Burned	
Process Gas				
3-90-007-01	Coke Oven or Blast Furnace	0.0	10^6 Cubic Feed Burned	
3-90-007-02	Coke Oven Gas	0.0	10^6 Cubic Feed Burned	
3-90-007-97	General: Specify in Comments		10^6 Cubic Feed Burned	
3-90-007-98	General: Specify in Comments		10^6 Cubic Feed Burned	
3-90-007-99	General: Specify in Comments		10^6 Cubic Feed Burned	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Coke				
3-90-008-99	General	0.0	Tons Burned	
Wood				
3-90-009-99	General	0.0	Tons Burned	
Liquified Petroleum Gas				
3-90-010-99	General	0.0	10^3 Gallons Burned	
Solid Waste				
3-90-012-99	Specify in Comments		Tons Burned	
Liquid Waste				
3-90-013-99	Specify in Comments		10^3 Gallons Burned	
MISCELLANEOUS MANUFACTURING INDUSTRIES - MAJOR GROUP 39				
Miscellaneous Manufacturing Industries - Fuel Fired Equipment Process Heaters				
3-99-900-01	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-99-900-02	Residual Oil		10^3 Gallons Burned	
3-99-900-03	Natural Gas		10^6 Cubic Feet Burned	
3-99-900-04	Process Gas		10^6 Cubic Feet Burned	
Incinerators				
3-99-900-11	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-99-900-12	Residual Oil		10^3 Gallons Burned	
3-99-900-13	Natural Gas		10^6 Cubic Feet Burned	
3-99-900-14	Process Gas		10^6 Cubic Feet Burned	
Flares				
3-99-900-21	Distillate Oil (No. 2)		10^3 Gallons Burned	
3-99-900-22	Residual Oil		10^3 Gallons Burned	
3-99-900-23	Natural Gas		10^6 Cubic Feet Burned	
3-99-900-24	Process Gas		10^6 Cubic Feet Burned	
Miscellaneous Industrial Processes				
3-99-999-95	Other Not Classified (Specify in Comments)		Gallons	
3-99-999-96	Other Not Classified (Specify in Comments)		10^3 Gallons	
3-99-999-98	Other Not Classified (Specify in Comments)		10^3 Parts Produced	
3-99-999-99	Other Not Classified (Specify in Comments)		Tons Processed	

SCC	Process	VOC Lbs/Unit	Units	Notes
ORGANIC SOLVENT EVAPORATION - DRY CLEANING - MAJOR GROUP 72				
Dry Cleaning - 7215, 7216, 7218				
4-01-001-01	Perchloroethylene	550.0	Tons Clothes Cleaned	
4-01-001-02	Stoddard (Petroleum Solvent)	560.0	Tons Clothes Cleaned	
4-01-001-03	Perchloroethylene	2000.0[d]	Tons Solvent Consumed	
4-01-001-04	Stoddard (Petroleum Solvent)	2000.0[d]	Tons Solvent Consumed	
4-01-001-05	Trichlorotrifluoroethane[tt] (Freon)	0.0	Tons Solvent Consumed	
4-01-001-06	Trichlorotrifluoroethane[tt] (Freon)	0.0	Tons Clothes Cleaned	
4-01-001-98	Other Not Classified (Specify in Comments)		Tons Solvent Consumed	
ORGANIC SOLVENT EVAPORATION - DEGREASING - METAL CLEANING - MAJOR GROUPS 25, 33-39, 75[ss]				
Open-Top Vapor Degreasing				
4-01-002-01	Stoddard (Petroleum Naphtha)	2000.0	Tons Make-Up Solvent Used	
4-01-002-02	1,1,1-Trichloroethane[tt] (Methyl Chloroform)	0.0	Tons Make-Up Solvent Used	
4-01-002-03	Perchloroethylene	2000.0	Tons Make-Up Solvent Used	
4-01-002-04	Methylene Chloride[tt]	0.0	Tons Make-Up Solvent Used	
4-01-002-05	Trichloroethylene	2000.0	Tons Make-Up Solvent Used	
4-01-002-06	Toluene	2000.0	Tons Make-Up Solvent Used	
4-01-002-07	Trichlorotrifluoroethane[tt]	0.0	Tons Make-Up Solvent Used	
4-01-002-15	Entire Unit[uu]	21000.0	Number of Degreasing Units in Operation	
4-01-002-16	Entire Unit[uu]	180.0	10^3 Sq. Ft. Product Surface Area	
4-01-002-17	Entire Unit[uu]	0.15	Sq. Ft. Surface Area Per Hours of Operation	
4-01-002-97	Other Not Classified (Specify in Comments)		Gallons Solvent Used	
4-01-002-99	Other Not Classified (Specify in Comments)		Tons Make-Up Solvent Used	

SCC	Process	VOC Lbs/Unit	Units	Notes
Conveyorized Vapor Degreasing				
4-01-002-21	- Stoddard (Petroleum Naphtha)	2000.0	Tons Make-Up Solvent Used	
4-01-002-22	- 1,1,1-Trichloroethane[tt]	0.0	Tons Make-Up Solvent Used	
4-01-002-23	- Perchloroethylene	2000.0	Tons Make-Up Solvent Used	
4-01-002-24	- Methylene Chloride[tt]	0.0	Tons Make-Up Solvent Used	
4-01-002-25	- Trichloroethylene	2000.0	Tons Make-Up Solvent Used	
4-01-002-35	- Entire Unit: w/vaporized[uu] Solvent	52000.0	Number of Degreasing Units in Operation	
4-01-002-36	- Entire Unit: w/nonboiling[uu] Solvent	104000.0	Number of Degreasing Units in Operation	
4-01-002-96	- Other Not Classified (Specify in Comments)		Gallons Solvent Used	
4-01-002-98	- Other Not Classified (Specify in Comments)		Tons Make-Up Solvent Used	
Degreasing Units - General				
4-01-002-51	- Stoddard Solvent		Gallons Solvent Consumed	
4-01-002-52	- 1,1,1-Trichloroethane[tt]		Gallons Solvent Consumed	
4-01-002-53	- Perchloroethylene		Gallons Solvent Consumed	
4-01-002-54	- Methylene Chloride[tt]		Gallons Solvent Consumed	
4-01-002-55	- Trichloroethylene		Gallons Solvent Consumed	
4-01-002-56	- Toluene		Gallons Solvent Consumed	
4-01-002-57	- Trichlorotrifluoroethane		Gallons Solvent Consumed	
4-01-002-95	- Other Not Classified (Specify in Comments)		Gallons Solvent Consumed	
Cold Solvent Cleaning/Stripping				
4-01-003-01	- Methanol	2000.0	Tons Solvent Consumed	
4-01-003-02	- Methylene Chloride[tt]	0.0	Tons Solvent Consumed	
4-01-003-03	- Stoddard (Petroleum Solvent)	2000.0	Tons Solvent Consumed	
4-01-003-04	- Perchloroethylene	2000.0	Tons Solvent Consumed	
4-01-003-05	- 1,1,1-Trichloroethane[tt] (Methyl Chloroform)	0.0	Tons Solvent Consumed	
4-01-003-06	- Trichloroethylene	2000.0	Tons Solvent Consumed	
4-01-003-35	- Entire Unit[uu]	660.0	Number of Cold Solvent Cleaners in Operation	
4-01-003-36	- Entire Unit[uu]	96.0	10^3 Sq. Ft. Product Surface Area	
4-01-003-98	- Other Not Classified (Specify in Comments)		Gallons Solvent Consumed	
4-01-003-99	- Other Not Classified (Specify in Comments)		Tons Solvent Consumed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Knit Fabric Scouring with Chlorinated Solvent - 2211-2241, 2261-2269, 2281-2284				
(Removal of Finish Oils from Fabric)				
4-01-004-01	- Perchloroethylene	2000.0	Tons Solvent Consumed	
4-01-004-99	- Other Not Classified (Specify in Comments)		Tons Solvent Consumed	
Organic Solvent Evaporation - Fugitive Emissions[f]				
4-01-888-01	- Specify in Comments Field		Tons Product	
4-01-888-02	- Specify in Comments Field		Tons Product	
4-01-888-03	- Specify in Comments Field		Tons Product	
4-01-888-04	- Specify in Comments Field		Tons Product	
4-01-888-05	- Specify in Comments Field		Tons Product	
4-01-888-98	- Specify in Comments Field		Gallons	
SURFACE COATING OPERATIONS[vv]				
Coating Application - General				
4-02-001-01	- Paint: Solvent-base	1120.0	Tons Coating Applied	
4-02-001-10	- Paint: Solvent-Base	5.6[c]	Gallons of Coating	
4-02-002-01	- Paint: Water-base	180.0[d]	Tons Coating Applied	
4-02-002-10	- Paint: Water-Base	1.0[d]	Gallons of Coating	
4-02-003-01	- Varnish/Shellac	1000.0	Tons Coating Applied	
4-02-003-10	- Varnish/Shellac	3.5[c]	Gallons of Coating	
4-02-004-01	- Lacquer	1540.0	Tons Coating Applied	
4-02-004-10	- Lacquer	6.5[c]	Gallons of Coating	
4-02-005-01	- Enamel	840.0	Tons Coating Applied	
4-02-005-10	- Enamel	3.8[ww]	Gallons of Coating	
4-02-006-01	- Primer	1320.0	Tons Coating Applied	
4-02-006-10	- Primer	6.6[c]	Gallons of Coating	
4-02-007-01	- Adhesive Application	900	Tons Coating Applied	65
4-02-007-06	- Adhesive: Solvent Mixing	2000.0[d]	Tons Solvent Mixed	
4-02-007-07	- Adhesive: Solvent Storage	2000.0[d]	Tons Solvent Stored	
4-02-007-10	- Adhesive	4.4	Gallons of Coating	66
Coating Oven				
4-02-008-01	- General	950	Tons Coating	67
4-02-008-10	- General		Gallons of Coating	
4-02-008-98	- General		10^3 Feet	

SCC	Process	VOC Lbs/Unit	Units	Notes
Thinning Solvents[ss, xx]				
4-02-009-01	General: Specify in Comments	2000.0	Tons Solvent	
4-02-009-02	Acetone	2000.0	Tons Solvent	
4-02-009-03	Butyl Acetate	2000.0	Tons Solvent	
4-02-009-04	Butyl Alcohol	2000.0	Tons Solvent	
4-02-009-05	Carbitol	2000.0	Tons Solvent	
4-02-009-06	Cellosolve	2000.0	Tons Solvent	
4-02-009-07	Cellosolve Acetate	2000.0	Tons Solvent	
4-02-009-08	Dimethyl Formamide	2000.0	Tons Solvent	
4-02-009-09	Ethyl Acetate	2000.0	Tons Solvent	
4-02-009-10	Ethyl Alcohol	2000.0	Tons Solvent	
4-02-009-11	Gasoline	2000.0	Tons Solvent	
4-02-009-12	Isopropyl Alcohol	2000.0	Tons Solvent	
4-02-009-13	Isopropyl Acetate	2000.0	Tons Solvent	
4-02-009-14	Kerosene	2000.0	Tons Solvent	
4-02-009-15	Lactol Spirits	2000.0	Tons Solvent	
4-02-009-16	Methyl Acetate	2000.0	Tons Solvent	
4-02-009-17	Methyl Alcohol	2000.0	Tons Solvent	
4-02-009-18	MEK	2000.0	Tons Solvent	
4-02-009-19	MIBK	2000.0	Tons Solvent	
4-02-009-20	Mineral Spirits	2000.0	Tons Solvent	
4-02-009-21	Naphtha	2000.0	Tons Solvent	
4-02-009-22	Toluene	2000.0	Tons Solvent	
4-02-009-23	Varsol	2000.0	Tons Solvent	
4-02-009-24	Xylene	2000.0	Tons Solvent	
4-02-009-25	Benzene	2000.0	Tons Solvent	
4-02-009-26	Turpentine	2000.0	Tons Solvent	
4-02-009-98	General: Specify in Comments		Gallons Solvent	
Coating Oven Heater[vv]				
4-02-010-01	Natural Gas	17	10^6 Cubic Feet Burned	68
4-02-010-02	Distillate Oil		10^3 Gallons Burned	
4-02-010-03	Residual Oil		10^3 Gallons Burned	
4-02-010-04	Liquified Petroleum Gas (LPG)	0.4	10^3 Gallons Burned	3
Fabric Coating - 2295[pp]				
4-02-011-01	Coating Operation	2000.0[d]	Tons Solvent in Coating	
4-02-011-03	Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-011-04	Coating Storage	2000.0[d]	Tons Solvent in Coating	
4-02-011-05	Equipment Cleanup	2000.0[d]	Tons Solvent in Coating	
Fabric Printing - 2261, 2262, 2269[pp]				
4-02-011-11	Fabric Printing: Roller	284.0	Tons of Fabric	
4-02-011-12	Fabric Printing: Roller[yy]	278000.0	Number of Printing Lines	

SCC	Process	VOC Lbs/Unit	Units	Notes
Fabric Printing - 2261, 2262, 2269[pp] (Continued)				
4-02-011-13	Fabric Printing: Rotary Screen	46.0	Tons of Fabric	
4-02-011-14	Fabric Printing: Rotary Screen[yy]	62000.0	Number of Printing Lines	
4-02-011-15	Fabric Printing: Flat Screen	158.0	Tons of Fabric	
4-02-011-16	Fabric Printing: Flat Screen[yy]	62000.0	Number of Printing Lines	
4-02-011-99	Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Fabric Dyeing - 2211-2241, 2261-2269, 2281-2284 [pp]				
4-02-012-01	Dye Application: General		Tons Dye Consumed	
4-02-012-10	Dye Application: General		Gallons Dye Consumed	
Application of Solvent-borne Coating (Paper Coating)				
4-02-013-01	Coating Operation	2000.0[d]	Tons Solvent in Coating	
4-02-013-03	Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-013-04	Coating Storage	2000.0[d]	Tons Solvent in Coating	
4-02-013-05	Equipment Cleaning	2000.0[d]	Tons Solvent in Coating	
4-02-013-99	Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Large Appliances - 363, 365 343 358 [zz]				
4-02-014-01	Prime Coating Operation	2000.0[d]	Tons Solvent in Coating	
4-02-014-02	Cleaning/Pretreatment	2000.0[d]	Tons Solvent in Coating	
4-02-014-03	Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-014-04	Coating Storage	2000.0[d]	Tons Solvent in Coating	
4-02-014-05	Equipment Cleanup	2000.0[d]	Tons Solvent in Coating	
4-02-014-06	Topcoat Spray	2000.0[d]	Tons Solvent in Coating	
4-02-014-31	Coating Line-General	0.9	Number of Appliances Produced	
4-02-014-32	Prime Air Spray	3.1	10^3 Sq. Ft. Product Surface Area	
4-02-014-33	Prime Electrostatic Spray	1.75	10^3 Sq. Ft. Product Surface Area	
4-02-014-34	Prime Flow Coat	1.65	10^3 Sq. Ft. Product Surface Area	
4-02-014-35	Prime Dip Coat	1.65	10^3 Sq. Ft. Product Surface Area	
4-02-014-36	Prime Electro-deposition	1.5	10^3 Sq. Ft. Product Surface Area	
4-02-014-37	Top Air Spray	5.0	10^3 Sq. Ft. Product Surface Area	
4-02-014-38	Top Electrostatic Spray	2.8	10^3 Sq. Ft. Product Surface Area	
4-02-014-99	Other Not Classified (Specify in Comments)		Tons Solvent in Coating	

SCC	Process	VOC Lbs/Unit	Units	Notes
Magnet Wire Surface Coating - 3357, 3351				
4-02-015-01	- Coating Application/Curing	2000.0[d]	Tons Solvent in Coating	
4-02-015-02	- Cleaning/Pretreatment	2000.0[d]	Tons Solvent in Coating	
4-02-015-03	- Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-015-04	- Coating Storage	2000.0[d]	Tons Solvent in Coating	
4-02-015-05	- Equipment Cleanup	2000.0[d]	Tons Solvent in Coating	
4-02-015-31	- Coating Line-General	186000.0	Number of Coating Lines	
4-02-015-99	- Other Not Classified		Tons Solvent in Coating	
Surface Coating of Automobiles and Light Trucks - 3711, 3713				
4-02-016-01	- Prime Application, Electrodeposition/Dip/Spray	2000.0[d]	Tons Solvent in Coating	
4-02-016-02	- Cleaning/Pretreatment	2000.0[d]	Tons Solvent in Coating	
4-02-016-03	- Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-016-04	- Coating Storage	2000.0[d]	Tons Solvent in Coating	
4-02-016-05	- Equipment Cleanup	2000.0[d]	Tons Solvent in Coating	
4-02-016-06	- Topcoat Operation	2000.0[d]	Tons Solvent in Coating	
4-02-016-19	- Prime Surfacing Operation	2000.0[d]	Tons Solvent in Coating	
4-02-016-20	- Repair Topcoat Application Area	2000.0[d]	Tons Solvent in Coating	
Automobiles - 3711				
4-02-016-21	- Prime Coating: Solvent-borne	14.54	Number of Autos Produced	
4-02-016-22	- Prime Coating: Electrodeposition	0.45	Number of Autos Produced	
4-02-016-23	- Guide Coating: Solvent-borne	4.16	Number of Autos Produced	
4-02-016-24	- Guide Coating: Waterborne	1.5	Number of Autos Produced	
4-02-016-25	- Topcoat: Solvent-borne	30.8	Number of Autos Produced	
4-02-016-26	- Topcoat: Waterborne	4.95	Number of Autos Produced	
Light Duty Trucks - 3713				
4-02-016-27	- Prime Coating: Solvent-borne	42.39	Number of Trucks Produced	
4-02-016-28	- Prime Coating: Electrodeposition	0.58	Number of Trucks Produced	
4-02-016-29	- Guide Coating: Solvent-borne	14.04	Number of Trucks Produced	
4-02-016-30	- Guide Coating: Waterborne	5.06	Number of Trucks Produced	
4-02-016-31	- Topcoat: Solvent-borne	34.0	Number of Trucks Produced	
4-02-016-32	- Topcoat: Waterborne	15.47	Number of Trucks Produced	
4-02-016-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Metal Cans - 3411				
4-02-017-02	- Cleaning/Pretreatment	2000.0[d]	Tons Solvent in Coating	
4-02-017-03	- Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-017-04	- Coating Storage	2000.0[d]	Tons Solvent In Coating	
4-02-017-05	- Equipment Cleanup	2000.0[d]	Tons Solvent in Coating	
4-02-017-21	- Two Piece and Exterior Base Coating	2000.0[d]	Tons Solvent in Coating	

SCC	Process	VOC Lbs/Unit	Units	Notes
Surface Coating of Metal Cans - 3411 Continued)				
4-02-017-22	- Interior Spray Coating	2000.0[d]	Tons Solvent in Coating	
4-02-017-23	- Sheet Basecoating (Interior)	2000.0[d]	Tons Solvent in Coating	
4-02-017-24	- Sheet Basecoating (Exterior)	2000.0[d]	Tons Solvent in Coating	
4-02-017-25	- Side Seam Spray Coating	2000.0[d]	Tons Solvent in Coating	
4-02-017-26	- End Sealing Compound	2000.0[d]	Tons Solvent in Coating	
4-02-017-27	- Lithography	2000.0[d]	Tons Solvent in Coating	
4-02-017-28	- Over Varnish	2000.0[d]	Tons Solvent in Coating	
4-02-017-31	- Three-piece Can Sheet Basecoating	352000.0	Number of Coating Lines	
4-02-017-32	- Three-piece Can Sheet Lithographic Coating Line	11000.0	Number of Coating Lines	
4-02-017-33	- Three-piece Beverage Can-Side Seam Spray Coating	40000.0	Number of Coating Lines	
4-02-017-34	- Three-piece Beverage Can Interior Body Spray Coating	176000.0	Number of Coating Lines	
4-02-017-35	- Two-piece Can Coating Line	574000.0	Number of Coating Lines	
4-02-017-36	- Two-piece Can End Sealing Compound	30000.0	Number of Coating Lines	
4-02-017-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Metal Coils - 3353, 3354				
4-02-018-01	- Prime Coating Application	2000.0[d]	Tons Solvent in Coating	
4-02-018-03	- Solvent Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-018-04	- Solvent Storage	2000.0[d]	Tons Solvent in Coating	
4-02-018-05	- Equipment Cleanup	2000.0[d]	Tons Solvent in Coating	
4-02-018-06	- Finish Coating Application	2000.0[d]	Tons Solvent in Coating	
4-02-018-99	- Other Not Classified		Tons Solvent in Coating	
Wood Furniture Surface Coating - 2511, 2512, 2517, 2521				
4-02-019-01	- Coating Operation	2000.0[d]	Tons Solvent in Coating	
4-02-019-03	- Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-019-04	- Coating Storage	2000.0[d]	Tons Solvent in Coating	
4-02-019-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Metal Furniture Surface Coating - 2514, 2522				
4-02-020-01	- Coating Operation	2000.0[d]	Tons Solvent in Coating	
4-02-020-02	- Cleaning/Pretreatment	2000.0[d]	Tons Solvent in Coating	
4-02-020-03	- Coating Mixing	2000.0[d]	Tons Solvent in Coating	
4-02-020-04	- Coating Storage	2000.0[d]	Tons Solvent in Coating	
4-02-020-05	- Equipment Cleanup	2000.0[d]	Tons Solvent in Coating	

SCC	Process	VOC Lbs/Unit	Units	Notes
Metal Furniture Surface Coating - 2514, 2522 (Continued)				
4-02-020-31	- Single Sprayline: General	13.1	10^3 Sq. Ft. Product Surface Area Coated	
4-02-020-32	- Spray Dip Line: General	15.3	10^3 Sq.Ft. Product Surface Area Coated	
4-02-020-33	- Spray High Solids Coating	3.9	10^3 Sq. Ft. Product Surface Area Coated	
4-02-020-34	- Spray Water-Borne Coating	2.45	10^3 Sq. Ft. Product Surface Area Coated	
4-02-020-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Flat Wood Products - 2435, 2492, 2499				
4-02-021-01	- Base Coat	2000.0^d	Tons Solvent in Coating	
4-02-021-03	- Coating Mix	2000.0^d	Tons Solvent in Coating	
4-02-021-04	- Coating Storage	2000.0^d	Tons Solvent in Coating	
4-02-021-05	- Equipment Cleanup	2000.0^d	Tons Solvent in Coating	
4-02-021-06	- Topcoat	2000.0^d	Tons Solvent in Coating	
4-02-021-07	- Filler	2000.0^d	Tons Solvent in Coating	
4-02-021-08	- Sealer	2000.0^d	Tons Solvent in Coating	
4-02-021-09	- Inks	2000.0^d	Tons Solvent in Coating	
4-02-021-31	- Waterborne Coating	2.5	10^3 Sq. Ft. Product Surface Area	
4-02-021-32	- Solvent-borne Coating	16.5	10^3 Sq.Ft. Product Surface Area	
4-02-021-33	- Ultraviolet Coating	0.8	10^3 Sq. Ft. Product Surface Area	
4-02-021-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Plastics Parts - 3079^d				
4-02-022-01	- Coating Operation	2000.0	Tons Solvent in Coating	
4-02-022-02	- Cleaning/Pretreatment	2000.0	Tons Solvent in Coating	
4-02-022-03	- Coating Mixing	2000.0	Tons Solvent in Coating	
4-02-022-04	- Coating Storage	2000.0	Tons Solvent in Coating	
4-02-022-05	- Equipment Cleanup	2000.0	Tons Solvent in Coating	
4-02-022-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Large Ships - 3731^d				
4-02-023-01	- Prime Coating Operation	2000.0	Tons Solvent in Coating	
4-02-023-02	- Cleaning/Pretreatment	2000.0	Tons Solvent in Coating	
4-02-023-03	- Coating Mixing	2000.0	Tons Solvent in Coating	
4-02-023-04	- Coating Storage	2000.0	Tons Solvent in Coating	

SCC	Process	VOC Lbs/Unit	Units	Notes
Surface Coating of Large Ships - 3731 (Continued)				
4-02-023-05	- Equipment Cleanup	2000.0	Tons Solvent in Coating	
4-02-023-06	- Topcoat Operation	2000.0	Tons Solvent in Coating	
4-02-023-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Large Aircraft - 3721[d]				
4-02-024-01	- Prime Coating Operation	2000.0	Tons Solvent in Coating	
4-02-024-02	- Cleaning/Pretreatment	2000.0	Tons Solvent in Coating	
4-02-024-03	- Coating Mixing	2000.0	Tons Solvent in Coating	
4-02-024-04	- Coating Storage	2000.0	Tons Solvent in Coating	
4-02-024-05	- Equipment Cleanup	2000.0	Tons Solvent in Coating	
4-02-024-06	- Topcoat Operation	2000.0	Tons Solvent in Coating	
4-02-024-99	- Other Not Classified		Tons Solvent in Coating	
Surface Coating of Miscellaneous Metal Parts [aaa]				
4-02-025-01	- Coating Operation	2000.0	Tons Solvent in Coating	
4-02-025-02	- Cleaning/Pretreatment	2000.0	Tons Solvent in Coating	
4-02-025-03	- Coating Mixing	2000.0	Tons Solvent in Coating	
4-02-025-04	- Coating Storage	2000.0	Tons Solvent in Coating	
4-02-025-05	- Equipment Cleanup	2000.0	Tons Solvent in Coating	
4-02-025-31	- Conveyor Single Flow	15.3	10^3 Sq. Ft. Product Surface Area	
4-02-025-32	- Conveyor Single Dip	15.3	10^3 Sq. Ft. Product Surface Area	
4-02-025-33	- Conveyor Single Spray	27.5	10^3 Sq. Ft. Product Surface Area	
4-02-025-34	- Conveyor Two Coat Flow and Spray	42.8	10^3 Sq. Ft. Product Surface Area	
4-02-025-35	- Conveyor Two Coat, Dip and Spray	42.8	10^3 Sq. Ft. Product Surface Area	
4-02-025-36	- Conveyor Two Coat, Spray	55.0	10^3 Sq. Ft. Product Surface Area	
4-02-025-37	- Manual Two Coat, Spray and Air Dry	54.8	10^3 Sq. Ft. Product Surface Area	
4-02-025-99	- Other Not Classified (Specify in Comments)		Tons Solvent in Coating	
Surface Coating of Steel Drums - 3412				
4-02-026-01	- Coating Operation		Gallons Paint Consumed	
4-02-026-02	- Cleaning/Pretreatment		Gallons Paint Consumed	
4-02-026-03	- Coating Mixing		Gallons Paint Consumed	
4-02-026-04	- Coating Storage		Gallons Paint Consumed	
4-02-026-05	- Equipment Cleanup		Gallons Paint Consumed	

SCC	Process	VOC Lbs/Unit	Units	Notes
Surface Coating of Steel Drums - 3412 (Continued)				
4-02-026-06	Interior Coating		Gallons Paint Consumed	
4-02-026-07	Exterior Coating		Gallons Paint Consumed	
4-02-026-99	Other Not Classified (Specify in Comments)		Gallons Paint Consumed	
Organic Solvent Evaporation - Surface Coating - Fugitive Emissions ^{f}				
4-02-888-01	Specify in Comments Field		Tons Product	
4-02-888-02	Specify in Comments Field		Tons Product	
4-02-888-03	Specify in Comments Field		Tons Product	
4-02-888-04	Specify in Comments Field		Tons Product	
4-02-888-05	Specify in Comments Field		Tons Product	
Organic Solvent Evaporation - Surface Coating - Fuel Fired Equipment				
Flares				
4-02-900-21	Distillate Oil (No.2)		10^3 Gallons Burned	
4-02-900-22	Residual Oil		10^3 Gallons Burned	
4-02-900-23	Natural Gas		10^6 Cubic Feet Burned	
Organic Solvent Evaporation - Surface Coating - Miscellaneous				
4-02-999-97	Specify in Comments Field		10^3 Units Produced	
4-02-999-98	Specify in Comments Field		Gallons	
PETROLEUM PRODUCT STORAGE ^{bbb} (Refineries Oil and Gas Fields Only) 2911, 2992, 1311, 1321				
Fixed Roof Tanks (67,000BBL. Tank Size)				
4-03-010-01	Gasoline RVP13: Breathing Loss	30.5	10^3 Gallons Storage Capacity	
4-03-010-02	Gasoline RVP10: Breathing Loss	23.5	10^3 Gallons Storage Capacity	
4-03-010-03	Gasoline RVP7: Breathing Loss	16.4	10^3 Gallons Storage Capacity	
4-03-010-10	Crude Oil RVP5; Breathing Loss	5.78	10^3 Gallons Storage Capacity	
4-03-010-13	Jet Naphtha (JP-4): Breathing Loss	8.8	10^3 Gallons Storage Capacity	
4-03-010-16	Jet Kerosene: Breathing Loss	0.45	10^3 Gallons Storage Capacity	
4-03-010-19	Distillate Fuel #2: Breathing Loss	0.39	10^3 Gallons Storage Capacity	
4-03-010-97	Specify Liquid: Breathing Loss		10^3 Gallons Storage Capacity	

SCC	Process	VOC Lbs/Unit	Units	Notes
Fixed Roof Tanks (250,000 BBL. Tank Size)				
4-03-010-04	- Gasoline RVP13: Breathing Loss	22.5	10^3 Gallons Storage Capacity	
4-03-010-05	- Gasoline RVP10: Breathing Loss	17.4	10^3 Gallons Storage Capacity	
4-03-010-06	- Gasoline RVP7: Breathing Loss	12.3	10^3 Gallons Storage Capacity	
4-03-010-11	- Crude Oil RVP5: Breathing Loss	4.15	10^3 Gallons Storage Capacity	
4-03-010-14	- Jet Naphtha (JP-4): Breathing Loss	6.3	10^3 Gallons Storage Capacity	
4-03-010-17	- Jet Kerosene: Breathing Loss	0.3	10^3 Gallons Storage Capacity	
4-03-010-20	- Distillate Fuel #2: Breathing Loss	0.29	10^3 Gallons Storage Capacity	
4-03-010-98	- Specify Liquid: Breathing Loss		10^3 Gallons Storage Capacity	
Fixed Roof Tanks (Independent of Tank Diameter)				
4-03-010-07	- Gasoline RVP13: Working Loss	10.0	10^3 Gallons Throughput	
4-03-010-08	- Gasoline RVP10: Working Loss	8.2	10^3 Gallons Throughput	
4-03-010-09	- Gasoline RVP7: Working Loss	5.7	10^3 Gallons Throughput	
4-03-010-12	- Crude Oil RVP5: Working Loss	2.47	10^3 Gallons Throughput	
4-03-010-15	- Jet Naphtha (JP-4): Working Loss	2.5	10^3 Gallons Throughput	
4-03-010-18	- Jet Kerosene: Working Loss	0.03	10^3 Gallons Throughput	
4-03-010-21	- Distillate Fuel #2: Working Loss	0.02	10^3 Gallons Throughput	
4-03-010-99	- Specify Liquid: Working Loss		10^3 Gallons Throughput	
Floating Roof Tanks (67,000 BBL. Tank Size)				
4-03-011-01	- Gasoline RVP13: Standing Loss	18.2	10^3 Gallons Storage Capacity	
4-03-011-02	- Gasoline RVP10: Standing Loss	13.4	10^3 Gallons Storage Capacity	
4-03-011-03	- Gasoline RVP7: Standing Loss	8.6	10^3 Gallons Storage Capacity	
4-03-011-09	- Crude Oil RVP5: Standing Loss	1.76	10^3 Gallons Storage Capacity	
4-03-011-11	- Jet Naphtha (JP-4): Standing Loss	3.5	10^3 Gallons Storage Capacity	
4-03-011-13	- Jet Kerosene: Standing Loss	0.035	10^3 Gallons Storage Capacity	
4-03-011-15	- Distillate Fuel #2: Standing Loss	0.026	10^3 Gallons Storage Capacity	
4-03-011-98	- Specify Liquid: Standing Loss	0.24	10^3 Gallons Storage Capacity	63

SCC	Process	VOC Lbs/Unit	Units	Notes
Floating Roof Tanks (250,000 BBL. Tank Size)				
4-03-011-04	- Gasoline RVP13: Standing Loss	8.9	10^3 Gallons Storage Capacity	
4-03-011-05	- Gasoline RVP10: Standing Loss	6.5	10^3 Gallons Storage Capacity	
4-03-011-06	- Gasoline RVP7: Standing Loss	4.2	10^3 Gallons Storage Capacity	
4-03-011-10	- Crude Oil RVP5: Standing Loss	0.89	10^3 Gallons Storage Capacity	
4-03-011-12	- Jet Naphtha (JP-4): Standing Loss	1.7	10^3 Gallons Storage Capacity	
4-03-011-14	- Jet Kerosene: Standing Loss	0.017	10^3 Gallons Storage Capacity	
4-03-011-16	- Distillate Fuel #2: Standing Loss	0.013	10^3 Gallons Storage Capacity	
4-03-011-99	- Specify Liquid: Standing Loss		10^3 Gallons Storage Capacity	
Floating Roof Tanks (Withdrawal Loss)				
4-03-011-07	- Gasoline RVP13/RVP10/RVP7	0.0019	10^3 Gallons Throughput	
4-03-011-08	- Gasoline RVP13/RVP10/RVP7	0.001	10^3 Gallons Throughput	
4-03-011-17	- Crude Oil	0.007	10^3 Gallons Throughput	3
4-03-011-18	- Jet Naphtha (JP-4)	0.056	10^3 Gallons Throughput	63
4-03-011-19	- Jet Kerosene		10^3 Gallons Throughput	
4-03-011-20	- Distillate Fuel #2		10^3 Gallons Throughput	
4-03-011-97	- Specify Liquid		10^3 Gallons Throughput	
Tanks with External Floating Roof - Primary Seal				
4-03-011-30	- Specify Liquid: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-31	- Gasoline: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-32	- Crude Oil: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-33	- Jet Naphtha (JP-4): Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-34	- Jet Kerosene: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-35	- Distillate Fuel #2: Standing Loss		10^3 Gallons Storage Capacity	

SCC	Process	VOC Lbs/Unit	Units	Notes
Tanks with External Floating Roof - Secondary Seal				
4-03-011-40	Specify Liquid: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-41	Gasoline: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-42	Crude Oil: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-43	Jet Naphtha (JP-4): Standing Loss	3.5	10^3 Gallons Storage Capacity	3
4-03-011-44	Jet Kerosene: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-45	Distillate Fuel #2: Standing Loss		10^3 Gallons Storage Capacity	
Tanks with Internal Floating Roof				
4-03-011-50	Specify Liquid: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-51	Gasoline: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-52	Crude Oil: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-53	Jet Naphtha (JP-4): Standing Loss	31	10^3 Gallons Storage Capacity	3
4-03-011-54	Jet Kerosene: Standing Loss		10^3 Gallons Storage Capacity	
4-03-011-55	Distillate Fuel #2: Standing Loss		10^3 Gallons Storage Capacity	
Variable Vapor Space Tanks - (10,500 BBL. Tank Size)				
4-03-012-01	Gasoline RVP13: Filling Loss	9.6	10^3 Gallons Throughput	
4-03-012-02	Gasoline RVP10: Filling Loss	7.7	10^3 Gallons Throughput	
4-03-012-03	Gasoline RVP7: Filling Loss	5.4	10^3 Gallons Throughput	
4-03-012-04	Jet Naphtha (JP-4): Filling Loss	2.3	10^3 Gallons Throughput	
4-03-012-05	Jet Kerosene: Filling Loss	0.025	10^3 Gallons Throughput	
4-03-012-06	Distillate Fuel #2: Filling Loss	0.022	10^3 Gallons Throughput	
4-03-012-07	Benzene: Filling Loss	0.003	10^3 Gallons Throughput	73
4-03-012-99	Specify Liquid: Filling Loss		10^3 Gallons Throughput	
Petroleum Storage Tanks - Fugitive Emissions[f]				
4-03-888-01	Specify in Comments Field		10^3 Gallons Storage Capacity	
4-03-888-02	Specify in Comments Field		10^3 Gallons Storage Capacity	

SCC	Process	VOC Lbs/Unit	Units	Notes
Petroleum Storage Tanks - Fugitive Emissions[f]				
4-03-888-03	- Specify in Comments Field		10^3 Gallons Storage Capacity	
4-03-888-04	- Specify in Comments Field		10^3 Gallons Storage Capacity	
4-03-888-05	- Specify in Comments Field		10^3 Gallons Storage Capacity	
BULK TERMINALS - PETROLEUM STORAGE TANKS - MAJOR GROUP 51 & 42[bbb,ccc]				
Fixed Roof Tanks (67,000 BBL. Tank Size) - 5171, 4226				
4-04-001-01	- Gasoline RVP13: Breathing Loss	30.5	10^3 Gallons Storage Capacity	
4-04-001-02	- Gasoline RVP10: Breathing Loss	23.5	10^3 Gallons Storage Capacity	
4-04-001-03	- Gasoline RVP7: Breathing Loss	16.4	10^3 Gallons Storage Capacity	
Fixed Roof Tanks (67,000 BBL. Tank Size) - 5171, 4226				
4-04-001-04	- Gasoline RVP13: Breathing Loss	22.5	10^3 Gallons Storage Capacity	
4-04-001-05	- Gasoline RVP10: Breathing Loss	17.4	10^3 Gallons Storage Capacity	
4-04-001-06	- Gasoline RVP7: Breathing Loss	12.3	10^3 Gallons Storage Capacity	
Fixed Roof Tanks (Independent of Tank Diameter) - 5171, 4226				
4-04-001-07	- Gasoline RVP13: Working Loss	10.0	10^3 Gallons Storage Capacity	
4-04-001-08	- Gasoline RVP10: Working Loss	8.2	10^3 Gallons Storage Capacity	
4-04-001-09	- Gasoline RVP7: Working Loss	5.7	10^3 Gallons Storage Capacity	
Floating Roof Tanks (67,000 BBL. Tank Size) - 5171, 4226				
4-04-001-10	- Gasoline RVP13: Standing Loss	18.2	10^3 Gallons Storage Capacity	
4-04-001-11	- Gasoline RVP10: Standing Loss	13.4	10^3 Gallons Storage Capacity	
4-04-001-12	- Gasoline RVP7: Standing Loss	8.6	10^3 Gallons Storage Capacity	
4-04-001-16	- Gasoline RVP13/10/7: Withdrawal Loss	0.002	10^3 Gallons Storage Capacity	

SCC	Process	VOC Lbs/Unit	Units	Notes
Floating Roof Tanks (250,000 BBL. Tank Size) - 5171, 4226				
4-04-001-13	Gasoline RVP13: Standing Loss	8.9	10^3 Gallons Storage Capacity	
4-04-001-14	Gasoline RVP10: Standing Loss	6.5	10^3 Gallons Storage Capacity	
4-04-001-15	Gasoline RVP7: Standing Loss	4.2	10^3 Gallons Storage Capacity	
4-04-001-17	Gasoline RVP13/10/7: Withdrawal Loss	0.001	10^3 Gallons Throughput	
Variable Vapor Space - (10,500 BBL. Tank Size) - 5171, 4226				
4-04-001-18	Gasoline RVP13: Filling Loss	9.6	10^3 Gallons Throughput	
4-04-001-19	Gasoline RVP10: Filling Loss	7.7	10^3 Gallons Throughput	
4-04-001-20	Gasoline RVP7: Filling Loss	5.4	10^3 Gallons Throughput	
Miscellaneous Losses/Leaks - 5171, 4226				
4-04-001-51	Valves, Flanges & Pumps	0.4	10^3 Gallons Transferred	7
4-04-001-52	Vapor Collection Losses		10^3 Gallons Transferred	
4-04-001-53	Vapor Control Unit Losses		10^3 Gallons Transferred	
4-04-001-54	Tank Truck Vapor Leaks		10^3 Gallons Transferred	
BULK PLANTS - PETROLEUM STORAGE TANKS - MAJOR GROUPS 13, 42, 51[bbb,ddd]				
Fixed Roof Tanks (67,000 BBL. Tank Size) - 5171, 4226				
4-04-002-01	Gasoline RVP13: Breathing Loss	30.5	10^3 Gallons Storage Capacity	
4-04-002-02	Gasoline RVP10: Breathing Loss	23.5	10^3 Gallons Storage Capacity	
4-04-002-03	Gasoline RVP7: Breathing Loss	16.4	10^3 Gallons Storage Capacity	
Fixed Roof Tanks (67,000 BBL. Tank Size) - 5171, 4226				
4-04-002-04	Gasoline RVP13: Working Loss	10.0	10^3 Gallons Throughput	
4-04-002-05	Gasoline RVP10: Working Loss	8.2	10^3 Gallons Throughput	
4-04-002-06	Gasoline RVP7: Working Loss	5.7	10^3 Gallons Throughput	
Floating Roof Tanks (67,000 BBL. Tank Size) - 5171, 4226				
4-04-002-07	Gasoline RVP13: Standing Loss	18.2	10^3 Gallons Storage Capacity	
4-04-002-08	Gasoline RVP10: Standing Loss	13.4	10^3 Gallons Storage Capacity	
4-04-002-09	Gasoline RVP7: Standing Loss	8.6	10^3 Gallons Storage Capacity	
4-04-002-10	Gasoline RVP13/10/7: Withdrawal	0.0019	10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
Variable Vapor Space Tanks - (10,500 BBL. Tank) - 5171, 4226				
4-04-002-11	- Gasoline RVP13: Filling Loss	9.6	10^3 Gallons Throughput	
4-04-002-13	- Gasoline RVP10: Filling Loss	7.7	10^3 Gallons Throughput	
4-04-002-13	- Gasoline RVP7: Filling Loss	5.4	10^3 Gallons Throughput	
Miscellaneous Losses/Leaks - 5171, 4226				
4-04-002-50	- Loading Racks	0.7	10^3 Gallons Transferred	7
4-04-002-51	- Valves, Flanges & Pumps	0.025	10^3 Gallons Transferred	3
4-04-002-54	- Tank Truck Vapor Losses		10^3 Gallons Transferred	
Oil Field Storage of Crude Oil - 1311				
4-04-003-01	- Fixed Roof Tank: Breathing Loss	28	10^3 Gallons Storage Capacity	71
4-04-003-02	- Fixed Roof Tank: Working Loss	7.2	10^3 Gallons Throughput	72
4-04-003-03	- External Floating Roof Tank with Primary Seals: Standing Loss		10^3 Gallons Storage Capacity	
4-04-003-04	- External Floating Roof Tank with Secondary Seals: Standing Loss	36	10^3 Gallons Storage Capacity	63
4-04-003-05	- Internal Floating Roof Tank: Standing Loss		10^3 Gallons Storage Capacity	
Petroleum Product Storage - Underground Tanks - 5171, 4226				
4-04-004-01	- Gasoline RVP13: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-02	- Gasoline RVP13: Working Loss		10^3 Gallons Throughput	
4-04-004-03	- Gasoline RVP10: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-04	- Gasoline RVP10: Working Loss		10^3 Gallons Throughput	
4-04-004-05	- Gasoline RVP7: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-06	- Gasoline RVP7: Working Loss		10^3 Gallons Throughput	
4-04-004-07	- Crude Oil RVP5: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-08	- Crude Oil RVP5: Working Loss		10^3 Gallons Throughput	
4-04-004-09	- Jet Naphtha JP-4: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-10	- Jet Naphtha JP-4: Working Loss		10^3 Gallons Throughput	
4-04-004-11	- Jet Kerosene: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-12	- Jet Kerosene: Working Loss		10^3 Gallons Throughput	
4-04-004-13	- Distillate Fuel #2: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-14	- Distillate Fuel #2: Working Loss		10^3 Gallons Throughput	
4-04-004-97	- Specify Liquid: Breathing Loss		10^3 Gallons Storage Capacity	
4-04-004-98	- Specify Liquid: Working Loss		10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
PRINTING/PUBLISHING - PRINTING PROCESS - MAJOR GROUP 27				
Dryers - 2711 thru 2782				
4-05-001-01	Dryer	2000.0[d]	Tons Solvent in Ink	
4-05-001-99	Dryer		Gallons Ink	
Printing - 2751, 2752, 2754				
4-05-002-01	Letter Press - 2751	420.0	Tons Ink	
4-05-002-11	Letter Press - 2751	1200.0	Tons Solvent in Ink	
4-05-002-12	Letter Press - 2751	1.5	Gallons Ink	
4-05-003-01	Flexographic - 2751	1240.0	Tons Ink	
4-05-003-11	Flexographic - 2751	1910.0	Tons Solvent in Ink	
4-05-003-12	Flexographic - 2751	4.4	Gallons Ink	
4-05-004-01	Lithographic - 2752	350.0	Tons Ink	
4-05-004-11	Lithographic - 2752	1000.0	Tons Solvent in Ink	
4-05-004-12	Lithographic - 2752	1.24	Gallons Ink	
4-05-005-01	Gravure - 2754	1240.0	Tons Ink	
4-05-005-11	Gravure - 2754	1910.0	Tons Solvent in Ink	
4-05-005-12	Gravure - 2754	4.4	Gallons Ink	
4-05-005-13	Gravure: Publication Printing - 2754	12.4	Gallons Ink	
4-05-006-01	Ink Mixing: General	2000.0[d]	Tons Solvent in Ink	
4-05-007-01	Solvent Storage: General	2000.0[d]	Tons Solvent Stored	
Ink Thinning Solvents - 2700-2799 [eee]				
4-05-003-02	Carbitol	2000.0[d]	Tons Solvent Added	
4-05-003-03	Cellosolve	2000.0[d]	Tons Solvent Added	
4-05-005-02	Dimethylformamide	2000.0[d]	Tons Solvent Added	
4-05-005-03	Ethyl Acetate	2000.0[d]	Tons Solvent Added	
4-05-003-04	Ethyl Alcohol	2000.0[d]	Tons Solvent Added	
4-05-003-05	Isopropyl Alcohol	2000.0[d]	Tons Solvent Added	
4-05-002-02	Kerosene	2000.0[d]	Tons Solvent Added	
4-05-005-06	Methyl Ethyl Ketone	2000.0[d]	Tons Solvent Added	
4-05-005-07	Methyl Isobutyl Ketone	2000.0[d]	Tons Solvent Added	
4-05-002-03	Mineral Spirits	2000.0[d]	Tons Solvent Added	
4-05-003-07	Naphtha	2000.0[d]	Tons Solvent Added	
4-05-003-06	N-Propyl Alcohol	2000.0[d]	Tons Solvent Added	
4-05-005-10	Toluene	2000.0[d]	Tons Solvent Added	
4-05-005-98	Other Not Classified (Specify in Comments)		10^3 Gallons Solvent	
4-05-005-99	Other Not Specified (Specify in Comments)		Tons Solvent Added	

SCC	Process	VOC Lbs/Unit	Units	Notes
Printing/Publishing - Fugitive Emissions				f
4-05-888-01	- Specify in Comments Field*		Tons Product	
4-05-888-02	- Specify in Comments Field*		Lbs/Year	
4-05-888-03	- Specify in Comments Field*		Lbs/Year	
4-05-888-04	- Specify in Comments Field*		Lbs/Year	
4-05-888-05	- Specify in Comments Field*		Lbs/Year	
TRANSPORTATION AND MARKETING OF PETROLEUM PRODUCTS - MAJOR GROUPS 44, 45, 51				
Tank Cars and Trucks - Normal Service - 5161, 5171, 5172, 4582				
4-06-001-31	- Gasoline-Submerged Loading	5.0	10^3 Gallons Transferred	
4-06-001-32	- Crude Oil-Submerged Loading	2.8	10^3 Gallons Transferred	
4-06-001-33	- Jet Naphtha(JP-4)-Submerged Loading	1.5	10^3 Gallons Transferred	
4-06-001-34	- Jet Kerosene-Submerged Loading	0.02	10^3 Gallons Transferred	
4-06-001-35	- Distillate Oil #2-Submerged Loading	0.01	10^3 Gallons Transferred	
4-06-001-36	- Gasoline-Splash Loading	12.0	10^3 Gallons Transferred	
4-06-001-37	- Crude Oil-Splash Loading	6.6	10^3 Gallons Transferred	
4-06-001-38	- Jet Naphtha-Splash Loading	4.0	10^3 Gallons Transferred	
4-06-001-39	- Jet Kerosene-Splash Loading	0.04	10^3 Gallons Transferred	
4-06-001-40	- Distillate Oil #2-Splash Loading	0.03	10^3 Gallons Transferred	
Tank Cars and Trucks - Balance Service - 5161, 5171, 5172, 4582				
4-06-001-41	- Gasoline-Submerged Loading	8.0	10^3 Gallons Transferred	
4-06-001-42	- Crude Oil-Submerged Loading	4.7	10^3 Gallons Transferred	
4-06-001-43	- Jet Naphtha-Submerged Loading	2.5	10^3 Gallons Transferred	
4-06-001-44	- Gasoline-Splash Loading	8.0	10^3 Gallons Transferred	
4-06-001-45	- Crude Oil-Splash Loading	4.7	10^3 Gallons Transferred	
4-06-001-46	- Jet Naphtha-Splash Loading	2.5	10^3 Gallons Transferred	
Tank Cars and Trucks - Clean Tanks - 5161, 5171, 5172, 4582				
4-06-001-47	- Gasoline-Submerged Loading	4.0	10^3 Gallons Transferred	
4-06-001-48	- Crude Oil-Submerged Loading	2.4	10^3 Gallons Transferred	
4-06-001-49	- Jet Naphtha(JP-4)-Submerged Loading	1.25	10^3 Gallons Transferred	
4-06-001-60	- Jet Kerosene-Submerged Loading	0.02	10^3 Gallons Transferred	
4-06-001-61	- Distillate Oil #2-Submerged Loading	0.008	10^3 Gallons Transferred	
Tank Cars and Trucks - Transmit Losses - 5161, 5171, 5172, 4582				
4-06-001-62	- Gasoline-Loaded with Fuel	0.005	10^3 Gallons Transferred	
4-06-001-63	- Gasoline-Return with Vapor	0.055	10^3 Gallons Transferred	

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SCC	Process	VOC Lbs/Unit	Units	Notes
Marine Vessels - 4463				
4-06-002-31	Gasoline-Ship Loading-Cleaned and Vapor-free Tank	1.0	10^3 Gallons Transferred	
4-06-002-32	Gasoline-Ocean Barges Loading	1.3	10^3 Gallons Transferred	
4-06-002-33	Gasoline-Barges Loading-Cleaned and Vapor-free Tank	1.2	10^3 Gallons Transferred	
4-06-002-34	Gasoline-Ship Loading-Ballasted Tank	1.6	10^3 Gallons Transferred	
4-06-002-35	Gasoline-Ocean Barges Loading-Ballasted Tank	2.1	10^3 Gallons Transferred	
4-06-002-36	Gasoline-Ship Loading-Uncleaned Tank	2.4	10^3 Gallons Transferred	
4-06-002-37	Gasoline-Ocean Barges Loading-Uncleaned Tank	3.3	10^3 Gallons Transferred	
4-06-002-38	Gasoline-Barges Loading-Uncleaned Tank	4.0	10^3 Gallons Transferred	
4-06-002-39	Gasoline-Tanker-Ballasting Tank Condition	1.4	10^3 Gallons Transferred	
4-06-002-40	Gasoline-Barges Loading-Average Tank Condition	4.0	10^3 Gallons Transferred	
4-06-002-41	Gasoline-Tanker-Ballasting	0.8	10^3 Gallons Transferred	
4-06-002-42	Gasoline-Transit	156.0	10^3 Gallons Transferred	
4-06-002-43	Crude Oil-Loading Tankers	0.68	10^3 Gallons Transferred	
4-06-002-44	Jet Fuel-Loading Tankers	0.5	10^3 Gallons Transferred	
4-06-002-45	Kerosene-Loading Tankers	0.005	10^3 Gallons Transferred	
4-06-002-46	Distillate Oil No. 2 Loading	0.005	10^3 Gallons Transferred	
4-06-002-48	Crude Oil-Loading Barges	1.6	10^3 Gallons Transferred	
4-06-002-49	Jet Fuel-Loading Barges	1.2	10^3 Gallons Transferred	
4-06-002-50	Kerosene-Loading Barges	0.013	10^3 Gallons Transferred	
4-06-002-51	Distillate Oil No. 2-Loading Tankers	0.012	10^3 Gallons Transferred	
4-06-002-53	Crude Oil-Tanker Ballasting	0.57	10^3 Gallons Total Cargo Capacity	
4-06-002-54	Crude Oil-Transit-Loss	49.0	10^3 Gallons Total Cargo Capacity	
4-06-002-55	Jet Fuel-Transit Loss	36.4	10^3 Gallons Total Cargo Capacity	
4-06-002-56	Kerosene-Transit-Loss	0.26	10^3 Gallons Total Cargo Capacity	
4-06-002-57	Distillate Oil No.2-Transit-Loss	0.26	10^3 Gallons Total Cargo Capcity	
4-06-002-59	Tanker/Barge Cleaning		10^3 Gallons Cargo Capacity Cleaned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Gasoline Retail Operations - 5541				
4-06-003-01	Splash Filling	11.5	10^3 Gallons Transferred	
4-06-003-02	Submerged Filling w/o Control	7.3	10^3 Gallons Transferred	
4-06-003-06	Balanced Submerged Filling	0.3	10^3 Gallons Throughput	
4-06-003-07	Underground Tank Breathing	1.0	10^3 Gallons Throughput	
Filling Vehicle Gas Tanks - 5541				
4-06-004-01	Vapor Loss: w/o Controls	11.0	10^3 Gallons Pumped	
4-06-004-02	Liquid Spill Loss: w/o Controls	0.67	10^3 Gallons Pumped	
4-06-004-03	Vapor Loss: w/o Controls	0.9	10^3 Gallons Transferred	
Petroleum Marketing - Fugitive Emissions[f]				
4-06-888-01	Specify in Comments Field*		10^3 Gallons Throughput	
4-06-888-02	Specify in Comments Field*		Lbs/Year	
4-06-888-03	Specify in Comments Field*		Lbs/Year	
4-06-888-04	Specify in Comments Field*		Lbs/Year	
4-06-888-05	Specify in Comments Field*		Lbs/Year	
ORGANIC CHEMICAL STORAGE - FIXED ROOF TANKS - MAJOR GROUPS 28, 29, 30, 51				
Acid Anhydrides				
4-07-004-01	Acetic Anhydride: Breathing Loss	1.1	10^3 Gallons Storage Capacity	73
4-07-004-02	Acetic Anhydride: Working Loss	0.13	10^3 Gallons Throughput	73
4-07-004-97	Specify Liquid: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-004-98	Specify Liquid: Working Loss		10^3 Gallons Throughput	
Alcohols				
4-07-008-01	N-Butyl Alcohol: Breathing Loss	0.73	10^3 Gallons Storage Capacity	73
4-07-008-02	N-Butyl Alcohol: Working Loss	0.01	10^3 Gallons Throughput	73
4-07-008-03	Sec-Butyl Alcohol: Breathing Loss	2.2	10^3 Gallons Storage Capacity	73
4-07-008-04	Sec-Butyl Alcohol: Working Loss	0.32	10^3 Gallons Throughput	73
4-07-008-05	Tert-Butyl Alcohol: Breathing Loss	3.6	10^3 Gallons Storage Capacity	73
4-07-008-06	Tert-Butyl Alcohol: Working Loss	0.76	10^3 Gallons Throughput	73
4-07-008-07	Cyclohexanol: Breathing Loss	0.73	10^3 Gallons Storage Capacity	73
4-07-008-08	Cyclohexanol: Working Loss	0.046	10^3 Gallons Throughput	73
4-07-008-09	Ethyl Alcohol: Breathing Loss	2.9	10^3 Gallons Storage Capacity	73
4-07-008-10	Ethyl Alcohol: Working Loss	0.66	10^3 Gallons Throughput	73

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SCC	Process	VOC Lbs/Unit	Units	Notes
Alcohols (Continued)				
4-07-008-11	Isobutyl Alcohol: Breathing Loss	1.5	10^3 Gallons Storage Capacity	73
4-07-008-12	Isobutyl Alcohol: Working Loss	0.17	10^3 Gallons Throughput	73
4-07-008-13	Isopropyl Alcohol: Breathing Loss	3.6	10^3 Gallons Storage Capacity	73
4-07-008-14	Isopropyl Alcohol: Working Loss	0.86	10^3 Gallons Throughput	73
4-07-008-15	Methyl Alcohol: Breathing Loss	3.6	10^3 Gallons Storage Capacity	73
4-07-008-16	Methyl Alcohol: Working Loss	1.07	10^3 Gallons Throughput	73
4-07-008-17	N-Propyl Alcohol: Breathing Loss	1.8	10^3 Gallons Storage Capacity	73
4-07-008-18	N-Propyl Alcohol: Working Loss	0.29	10^3 Gallons Throughput	73
4-07-008-97	Specify Alcohol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-008-98	Specify Alcohol: Working Loss		10^3 Gallons Throughput	
Alkanes (Paraffins)				
4-07-016-01	N-Decane: Breathing Loss	0.73	10^3 Gallons Storage Capacity	73
4-07-016-02	N-Decane: Working Loss	0.04	10^3 Gallons Throughput	73
4-07-016-03	N-Dodecane: Breathing Loss	0.15	10^3 Gallons Storage Capacity	73
4-07-016-04	N-Dodecane: Working Loss	0.004	10^3 Gallons Throughput	73
4-07-016-05	N-Heptane: Breathing Loss	5.8	10^3 Gallons Storage Capacity	73
4-07-016-06	N-Heptane: Working Loss	1.3	10^3 Gallons Throughput	73
4-07-016-07	Isopentane: Breathing Loss	57	10^3 Gallons Storage Capacity	73
4-07-016-08	Isopentane: Working Loss	16.3	10^3 Gallons Throughput	73
4-07-016-09	Pentadecane: Breathing Loss	0.04	10^3 Gallons Storage Capacity	73
4-07-016-10	Pentadecane: Working Loss	0.0008	10^3 Gallons Throughput	73
4-07-016-11	Naphtha: Breathing Loss	0.15	10^3 Gallons Storage Capacity	73
4-07-016-12	Naphtha: Working Loss	0.006	10^3 Gallons Throughput	73
4-07-016-13	Petroleum Distillate: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-016-14	Petroleum Distillate: Working Loss		10^3 Gallons Throughput	
4-07-016-97	Specify Alkane: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-016-98	Specify Alkane: Working Loss		10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
Alkenes (Olefins)				
4-07-020-01 -	Dodecene: Breathing Loss	0.15	10^3 Gallons Storage Capacity	73
4-07-020-02 -	Dodecene: Working Loss	0.005	10^3 Gallons Throughput	73
4-07-020-03 -	Heptenes-General: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-020-04 -	Heptenes-General: Working Loss		10^3 Gallons Throughput	
4-07-020-97 -	Specify Alkene: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-020-98 -	Specify Alkene: Working Loss		10^3 Gallons Throughput	
Amines				
4-07-032-01 -	Aniline: Breathing Loss	0.22	10^3 Gallons Storage Capacity	73
4-07-032-02 -	Aniline: Working Loss	0.13	10^3 Gallons Throughput	73
4-07-032-03 -	Ethanolamines: Breathing Loss	0.11	10^3 Gallons Storage Capacity	73
4-07-032-04 -	Ethanolamines: Working Loss	0.004	10^3 Gallons Throughput	73
4-07-032-05 -	Ethyleneamines: Breathing Loss	7.3	10^3 Gallons Storage Capacity	73
4-07-032-06 -	Ethyleneamines: Working Loss	2.5	10^3 Gallons Throughput	73
4-07-032-97 -	Specify Amine: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-032-98 -	Specify Amine: Working Loss		10^3 Gallons Throughput	
Aromatics				
4-07-036-01 -	Benzene: Breathing Loss	8.0	10^3 Gallons Storage Capacity	73
4-07-036-02 -	Benzene: Working Loss	2.25	10^3 Gallons Throughput	73
4-07-036-03 -	Cresol: Breathing Loss	0.11	10^3 Gallons Storage Capacity	73
4-07-036-04 -	Cresol: Working Loss	0.005	10^3 Gallons Throughput	73
4-07-036-05 -	Cumene: Breathing Loss	1.5	10^3 Gallons Storage Capacity	73
4-07-036-06 -	Cumene: Working Loss	0.16	10^3 Gallons Throughput	73
4-07-036-07 -	Diisopropyl Benzene: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-036-08 -	Diisopropyl Benzene: Working Loss		10^3 Gallons Throughput	
4-07-036-09 -	Ethyl Benzene: Breathing Loss	1.8	10^3 Gallons Storage Capacity	73
4-07-036-10 -	Ethyl Benzene: Working Loss	0.27	10^3 Gallons Throughput	73
4-07-036-11 -	Methylstyrene: Breathing Loss	0.73	10^3 Gallons Storage Capacity	73
4-07-036-12 -	Methylstyrene: Working Loss	0.05	10^3 Gallons Throughput	73

SCC	Process	VOC Lbs/Unit	Units	Notes
Aromatics (Continued)				
4-07-036-13	- Styrene: Breathing Loss	1.5	10^3 Gallons Storage Capacity	73
4-07-036-14	- Styrene: Working Loss	0.17	10^3 Gallons Throughput	73
4-07-036-15	- Toluene: Breathing Loss	3.6	10^3 Gallons Storage Capacity	73
4-07-036-16	- Toluene: Working Loss	0.66	10^3 Gallons Throughput	73
4-07-036-17	- m-Xylene: Breathing Loss	1.8	10^3 Gallons Storage Capacity	73
4-07-036-18	- m-Xylene: Working Loss	0.23	10^3 Gallons Throughput	73
4-07-036-19	- o-Xylene: Breathing Loss	1.5	10^3 Gallons Storage Capacity	73
4-07-036-20	- o-Xylene: Working Loss	0.18	10^3 Gallons Throughput	73
4-07-036-21	- p-Xylene: Breathing Loss	1.8	10^3 Gallons Storage Capacity	73
4-07-036-22	- p-Xylene: Working Loss	0.24	10^3 Gallons Throughput	73
4-07-036-23	- Xylenes-mixed: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-036-24	- Xylenes-mixed: Working Loss		10^3 Gallons Throughput	
4-07-036-97	- Specify Aromatic:Breathing Loss		10^3 Gallons Storage Capacity	
4-07-036-98	- Specify Aromatic: Working Loss		10^3 Gallons Throughput	
Carboxylic Acids				
4-07-040-01	- Acetic Acid: Breathing Loss	1.5	10^3 Gallons Storage Capacity	73
4-07-040-02	- Acetic Acid: Working Loss	0.24	10^3 Gallons Throughput	73
4-07-040-03	- Acrylic Acid: Breathing Loss	0.73	10^3 Gallons Storage Capacity	73
4-07-040-04	- Acrylic Acid: Working Loss	0.64	10^3 Gallons Throughput	73
4-07-040-05	- Adipic Acid: Breathing Loss	0.0003	10^3 Gallons Storage Capacity	73
4-07-040-06	- Adipic Acid: Working Loss	0.00001	10^3 Gallons Throughput	73
4-07-040-07	- Formic Acid: Breathing Loss	2.6	10^3 Gallons Storage Capacity	73
4-07-040-08	- Formic Acid: Working Loss	0.57	10^3 Gallons Throughput	73
4-07-040-09	- Propionic Acid: Breathing Loss	0.73	Day - 10^3 Gallons Storage Capacity	73
4-07-040-10	- Propionic Acid: Working Loss	0.06	10^3 Gallons Throughput	73
4-07-040-97	- Specify Acid: Breathing Loss		Day - 10^3 Gallons Storage Capacity	
4-07-040-98	- Specify Acid: Working Loss		10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
Esters				
4-07-044-01 -	Butyl Acetate: Breathing Loss	2.2	10^3 Gallons Storage Capacity	73
4-07-044-02 -	Butyl Acetate: Working Loss	0.34	10^3 Gallons Throughput	73
4-07-044-03 -	Butyl Acrylate: Breathing Loss	1.57	10^3 Gallons Storage Capacity	73
4-07-044-04 -	Butyl Acrylate: Working Loss	0.18	10^3 Gallons Throughput	73
4-07-044-05 -	Ethyl Acetate: Breathing Loss	8.4	10^3 Gallons Storage Capacity	73
4-07-044-06 -	Ethyl Acetate: Working Loss	2.3	10^3 Gallons Throughput	73
4-07-044-07 -	Ethyl Acrylate: Breathing Loss	5.1	10^3 Gallons Storage Capacity	73
4-07-044-08 -	Ethyl Acrylate: Working Loss	1.1	10^3 Gallons Throughput	73
4-07-044-09 -	Isobutyl Acrylate: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-044-10 -	Isobutyl Acrylate: Working Loss		10^3 Gallons Throughput	
4-07-044-11 -	Isopropyl Acetate: Breathing Loss	7.3	10^3 Gallons Storage Capacity	73
4-07-044-12 -	Isopropyl Acetate: Working Loss	1.8	10^3 Gallons Throughput	73
4-07-044-13 -	Methyl Acetate: Breathing Loss	14.2	10^3 Gallons Storage Capacity	73
4-07-044-14 -	Methyl Acetate: Working Loss	4.8	10^3 Gallons Throughput	73
4-07-044-15 -	Methyl Acrylate: Breathing Loss	8.0	10^3 Gallons Storage Capacity	73
4-07-044-16 -	Methyl Acrylate: Working Loss	2.2	10^3 Gallons Throughput	73
4-07-044-17 -	Methyl Methacrylate: Breathing Loss	3.6	10^3 Gallons Storage Capacity	73
4-07-044-18 -	Methyl Methacrylate: Working Loss	0.72	10^3 Gallons Throughput	73
4-07-044-19 -	Vinyl Acetate: Breathing Loss	9.1	10^3 Gallons Storage Capacity	73
4-07-044-20 -	Vinyl Acetate: Working Loss	2.7	10^3 Gallons Throughput	73
4-07-044-97 -	Specify Ester: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-044-98 -	Specify Ester: Working Loss		10^3 Gallons Throughput	
Ethers				
4-07-048-01 -	Methyl-tert-Butyl Ether: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-048-02 -	Methyl-tert-Butyl Ether: Working Loss		10^3 Gallons Throughput	
4-07-048-97 -	Specify Ether: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-048-98 -	Specify Ether: Working Loss		10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
Glycol Ethers[fff]				
4-07-052-01	- Butyl Carbitol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-02	- Butyl Carbitol: Working Loss		10^3 Gallons Throughput	
4-07-052-03	- Butyl Cellosolve: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-04	- Butyl Cellosolve: Working Loss		10^3 Gallons Throughput	
4-07-052-05	- Carbitol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-06	- Carbitol: Working Loss		10^3 Gallons Throughput	
4-07-052-07	- Cellosolve: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-08	- Cellosolve: Working Loss		10^3 Gallons Throughput	
4-07-052-09	- Diethylene Glycol: Breathing Loss	0.003	10^3 Gallons Storage Capacity	73
4-07-052-10	- Diethylene Glycol: Working Loss	0.00001	10^3 Gallons Throughput	73
4-07-052-11	- Methyl Carbitol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-12	- Methyl Carbitol: Working Loss		10^3 Gallons Throughput	
4-07-052-13	- Methyl Cellosolve: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-14	- Methyl Cellosolve: Working Loss		10^3 Gallons Throughput	
4-07-052-15	- Polyethylene Glycol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-16	- Polyethylene Glycol: Working Loss		10^3 Gallons Throughput	
4-07-052-17	- Triethylene Glycol: Breathing Loss	0.00001	10^3 Gallons Storage Capacity	73
4-07-052-18	- Triethylene Glycol: Working Loss	0.00001	10^3 Gallons Throughput	73
4-07-052-97	- Specify Glycol Ether: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-052-98	- Specify Glycol Ether: Working Loss		10^3 Gallons Throughput	
Glycols				
4-07-056-01	- 1,4-Butanediol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-056-02	- 1,4-Butanediol: Working Loss		10^3 Gallons Throughput	
4-07-056-03	- Ethylene Glycol: Breathing Loss	0.036	10^3 Gallons Storage Capacity	73
4-07-056-04	- Ethylene Glycol: Working Loss	0.02	10^3 Gallons Throughput	73
4-07-056-05	- Dipropylene Glycol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-056-06	- Dipropylene Glycol: Working Loss		10^3 Gallons Throughput	
4-07-056-07	- Glycerol: Breathing Loss	0.00001	10^3 Gallons Storage Capacity	73

SCC	Process	VOC Lbs/Unit	Units	Notes
Glycols (Continued)				
4-07-056-08	- Glycerol: Working Loss	0.00001	10^3 Gallons Throughput	73
4-07-056-09	- Propylene Gylcol: Breathing Loss	0.0067	10^3 Gallons Storage Capacity	73
4-07-056-10	- Propylene Gylcol: Working Loss	0.00001	10^3 Gallons Throughput	73
4-07-056-97	- Specify Gylcol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-056-98	- Specify Gylcol: Working Loss		10^3 Gallons Throughput	
Halogenated Organics				
4-07-060-01	- Benzyl Chloride: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-060-02	- Benzyl Chloride: Working Loss		10^3 Gallons Throughput	
4-07-060-03	- Caprolactam: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-060-04	- Caprolactam: Working Loss		10^3 Gallons Throughput	
4-07-060-05	- Carbon Tetrachloride: Breathing Loss	17.9	10^3 Gallons Storage Capacity	73
4-07-060-06	- Carbon Tetrachloride: Working Loss	5.2	10^3 Gallons Throughput	73
4-07-060-07	- Chlorobenzene: Breathing Loss	2.5	10^3 Gallons Storage Capacity	73
4-07-060-08	- Chlorobenzene: Working Loss	0.36	10^3 Gallons Throughput	73
4-07-060-09	- o-Dichlorobenzene: Breathing Loss	0.73	10^3 Gallons Storage Capacity	73
4-07-060-10	- o-Dichlorobenzene: Working Loss	0.05	10^3 Gallons Throughput	73
4-07-060-11	- p-Dichlorobenzene: Breathing Loss	0.73	10^3 Gallons Storage Capacity	73
4-07-060-12	- p-Dichlorobenzene: Working Loss	0.063	10^3 Gallons Throughput	73
4-07-060-13	- Epichlorohydrin: Breathing Loss	2.5	10^3 Gallons Storage Capacity	73
4-07-060-14	- Epichlorohydrin: Working Loss	0.40	10^3 Gallons Throughput	73
4-07-060-15	- Ethylene Dibromide: Breathing Loss	4.75	10^3 Gallons Storage Capacity	73
4-07-060-16	- Ethylene Dibromide: Working Loss	0.77	10^3 Gallons Throughput	73
4-07-060-17	- Ethylene Dichloride: Breathing Loss	8.8	10^3 Gallons Storage Capacity	73
4-07-060-18	- Ethylene Dichloride: Working Loss	2.3	10^3 Gallons Throughput	73
4-07-060-19	- Methylene Chloride: Breathing Loss	31.4	10^3 Gallons Storage Capacity	73
4-07-060-20	- Methylene Chloride: Working Loss	11.0	10^3 Gallons Throughput	73
4-07-060-21	- Perchloroethylene: Breathing Loss	5.1	10^3 Gallons Storage Capacity	73
4-07-060-22	- Perchloroethylene: Working Loss	0.84	10^3 Gallons Throughput	73

SCC	Process	VOC Lbs/Unit	Units	Notes
Halogenated Organics (Continued)				
4-07-060-23	- Trichloroethylene: Breathing Loss	4.4	10^3 Gallons Storage Capacity	73
4-07-060-24	- Trichloroethylene: Working Loss	2.8	10^3 Gallons Throughput	73
4-07-060-97	- Specify in Comments: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-060-98	- Specify in Comments: Working Loss		10^3 Gallons Throughput	
Isocyanates				
4-07-064-01	- MDI: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-064-02	- MDI: Working Loss		10^3 Gallons Throughput	
4-07-064-03	- TDI: Breathing Loss	0.036	10^3 Gallons Storage Capacity	73
4-07-064-04	- TDI: Working Loss	0.0008	10^3 Gallons Throughput	73
4-07-064-97	- Specify Isocyanate: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-064-98	- Specify Isocyanate: Working Loss		10^3 Gallons Throughput	
Ketones				
4-07-068-01	- Cyclohexanone: Breathing Loss	1.8	10^3 Gallons Storage Capacity	73
4-07-068-02	- Cyclohexanone: Working Loss	0.23	10^3 Gallons Throughput	73
4-07-068-97	- Specify Ketone: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-068-98	- Specify Ketone: Working Loss		10^3 Gallons Throughput	
Nitriles				
4-07-076-01	- Acrylonitrile: Breathing Loss	6.2	10^3 Gallons Storage Capacity	73
4-07-076-02	- Acrylonitrile: Working Loss	1.8	10^3 Gallons Throughput	73
4-07-076-97	- Specify Nitrile: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-076-98	- Specify Nitrile: Working Loss		10^3 Gallons Throughput	
Nitro Compounds				
4-07-080-01	- Nitrobenzene: Breathing Loss	0.36	10^3 Gallons Storage Capacity	73
4-07-080-02	- Nitrobenzene: Working Loss	0.026	10^3 Gallons Throughput	73
4-07-080-97	- Specify in Comments: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-080-98	- Specify in Comments: Working Loss		10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
Phenols				
4-07-084-01	- Nonylphenol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-084-02	- Nonylphenol: Working Loss		10^3 Gallons Throughput	
4-07-084-03	- Phenol: Breathing Loss	0.15	10^3 Gallons Storage Capacity	73
4-07-084-04	- Phenol: Working Loss	0.006	10^3 Gallons Throughput	73
4-07-084-97	- Specify Phenol: Breathing Loss		10^3 Gallons Storage Capacity	
4-07-084-98	- Specify Phenol: Working Loss		10^3 Gallons Throughput	
ORGANIC CHEMICAL STORAGE - FLOATING ROOF TANKS - MAJOR GROUPS 28, 29, 30, 51				
Aldehydes				
4-07-172-01	- Acetaldehyde: Standing Loss	10.6	10^3 Gallons Storage Capacity	73
4-07-172-02	- Acetaldehyde: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-172-03	- Acrolein: Standing Loss	2.5	10^3 Gallons Storage Capacity	73
4-07-172-04	- Acrolein: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-172-05	- N-Butraldehyde: Standing Loss	1.5	10^3 Gallons Storage Capacity	73
4-07-172-06	- N-Butraldehyde: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-172-07	- Formaldehyde: Standing Loss		10^3 Gallons Storage Capacity	
4-07-172-08	- Formaldehyde: Withdrawal Loss		10^3 Gallons Throughput	
4-07-172-09	- Isobutraldehyde: Standing Loss	2.2	10^3 Gallons Storage Capacity	73
4-07-172-10	- Isobutraldehyde: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-172-11	- Propionaldehyde: Standing Loss	3.3	10^3 Gallons Storage Capacity	73
4-07-172-12	- Propionaldehyde: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-172-97	- Specify Aldehyde: Standing Loss		10^3 Gallons Storage Capacity	
4-07-172-98	- Specify Aldehyde: Withdrawal Loss		10^3 Gallons Throughput	
Alkanes (Paraffins)				
4-07-176-01	- Cyclohexane: Standing Loss	1.35	10^3 Gallons Storage Capacity	73
4-07-176-02	- Cyclohexane: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-176-03	- N-Hexane: Standing Loss	2.2	10^3 Gallons Storage Capacity	73
4-07-176-04	- N-Hexane: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-176-05	- N-Pentane: Standing Loss	6.9	10^3 Gallons Storage Capacity	73

SCC	Process	VOC Lbs/Unit	Units	Notes
Alkanes (Paraffins) (Continued)				
4-07-176-06	N-Pentane: Withdrawal Loss	0.0017	10^3 Gallons Throughput	73
4-07-176-97	Specify Alkane: Standing Loss		10^3 Gallons Storage Capacity	
4-07-176-98	Specify Alkane: Withdrawal Loss		10^3 Gallons Throughput	
Alkenes (Olefins)				
4-07-180-01	Isoprene: Standing Loss	6.9	10^3 Gallons Storage Capacity	73
4-07-180-02	Isoprene: Withdrawal Loss	0.0018	10^3 Gallons Throughput	73
4-07-180-03	Methylallene: Standing Loss		10^3 Gallons Storage Capacity	
4-07-180-04	Methylallene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-180-05	1-Pentene: Standing Loss	8.8	10^3 Gallons Storage Capacity	73
4-07-180-06	1-Pentene: Withdrawal Loss	0.0017	10^3 Gallons Throughput	73
4-07-180-07	Piperylene: Standing Loss	5.1	10^3 Gallons Storage Capacity	73
4-07-180-08	Piperylene: Withdrawal Loss	0.0018	10^3 Gallons Throughput	73
4-07-180-09	Cyclopentene: Standing Loss	4.6	10^3 Gallons Storage Capacity	73
4-07-180-10	Cyclopentene: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-180-97	Specify Alkene: Standing Loss		10^3 Gallons Storage Capacity	
4-07-180-98	Specify Alkene: Withdrawal Loss		10^3 Gallons Throughput	
Ethers				
4-07-208-01	Ethyl Ether: Standing Loss	7.2	10^3 Gallons Storage Capacity	73
4-07-208-02	Ethyl Ether: Withdrawal Loss	0.0019	10^3 Gallons Throughput	73
4-07-208-03	Propylene Oxide: Standing Loss	5.5	10^3 Gallons Storage Capacity	73
4-07-208-04	Propylene Oxide: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-208-97	Specify Ether: Standing Loss		10^3 Gallons Storage Capacity	
4-07-208-98	Specify Ether: Withdrawal Loss		10^3 Gallons Throughput	
Halogenated Organics				
4-07-220-01	Carbon Tetrachloride: Standing Loss	2.9	10^3 Gallons Storage Capacity	73
4-07-220-02	Carbon Tetrachloride: Withdrawal Loss	0.004	10^3 Gallons Throughput	73
4-07-220-03	Chloroform: Standing Loss	4.0	10^3 Gallons Storage Capacity	73
4-07-220-04	Chloroform: Withdrawal Loss	0.004	10^3 Gallons Throughput	73

SCC	Process	VOC Lbs/Unit	Units	Notes
Halogenated Organics (Continued)				
4-07-220-05	- Ethylene Dichloride: Standing Loss	1.3	10^3 Gallons Storage Capacity	73
4-07-220-06	- Ethylene Dichloride: Withdrawal Loss	0.0034	10^3 Gallons Throughput	73
4-07-220-07	- Methylene Chloride: Standing Loss	6.2	10^3 Gallons Storage Capacity	73
4-07-220-08	- Methylene Chloride: Withdrawal Loss	0.004	10^3 Gallons Throughput	73
4-07-220-09	- 1,1,1-Trichloroethylene: Standing Loss	1.5	10^3 Gallons Storage Capacity	73
4-07-220-10	- 1,1,1-Trichloroethylene: Withdrawal Loss	0.004	10^3 Gallons Throughput	73
4-07-220-97	- Specify in Comments: Standing Loss		10^3 Gallons Storage Capacity	
4-07-220-98	- Specify in Comments: Withdrawal Loss		10^3 Gallons Throughput	
Ketones				
4-07-228-01	- Acetone: Standing Loss	2.2	10^3 Gallons Storage Capacity	73
4-07-228-02	- Acetone: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-228-03	- Methyl Ethyl Ketone: Standing Loss	1.1	10^3 Gallons Storage Capacity	73
4-07-228-04	- Methyl Ethyl Ketone: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-228-05	- MIBK: Standing Loss	0.29	10^3 Gallons Storage Capacity	73
4-07-228-06	- MIBK: Withdrawal Loss	0.002	10^3 Gallons Throughput	73
4-07-228-97	- Specify Ketone: Standing Loss		10^3 Gallons Storage Capacity	
4-07-228-98	- Specify Ketone: Withdrawal Loss		10^3 Gallons Throughput	
Mercaptans (Thiols)				
4-07-232-01	- Ethyl Mercaptan: Standing Loss	5.8	10^3 Gallons Storage Capacity	73
4-07-232-02	- Ethyl Mercaptan: Withdrawal Loss	0.0023	10^3 Gallons Throughput	73
4-07-232-97	- Specify Mercaptan: Standing Loss		10^3 Gallons Storage Capacity	
4-07-232-98	- Specify Mercaptan: Withdrawal Loss		10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
ORGANIC CHEMICAL STORAGE - PRESSURE TANKS				
Alkanes (Parrafins)				
4-07-816-01	Ethane: Withdrawal Loss		10^3 Gallons Throughput	
4-07-816-02	Butane: Withdrawal Loss		10^3 Gallons Throughput	
4-07-816-03	Methane: Withdrawal Loss		10^3 Gallons Throughput	
4-07-816-04	Natural Gas: Withdrawal Loss		10^3 Gallons Throughput	
4-07-816-05	Propane: Withdrawal Loss		10^3 Gallons Throughput	
4-07-816-99	Specify Alkane: Withdrawal Loss		10^3 Gallons Throughput	
Alkenes (Olefins)				
4-07-820-01	1,3-Butadiene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-820-02	1-Butene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-820-03	2-Butene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-820-04	Ethylene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-820-05	Isobutylene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-820-06	Propylene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-820-99	Specify Alkene: Withdrawal Loss		10^3 Gallons Throughput	
Alkynes (Acetylenes)				
4-07-824-01	Acetylene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-824-99	Specify Alkyne: Withdrawal Loss		10^3 Gallons Throughput	
Amines				
4-07-832-01	Methylamine: Withdrawal Loss		10^3 Gallons Throughput	
4-07-832-02	Dimethylamine: Withdrawal Loss		10^3 Gallons Throughput	
4-07-832-03	Trimethylamine: Withdrawal Loss		10^3 Gallons Throughput	
4-07-832-99	Specify Amine: Withdrawal Loss		10^3 Gallons Throughput	
Ethers				
4-07-848-01	Ethylene Oxide: Withdrawal Loss		10^3 Gallons Throughput	
4-07-848-99	Specify Ether: Withdrawal Loss		10^3 Gallons Throughput	
Halogenated Organics				
4-07-860-01	Ethyl Chloride: Withdrawal Loss		10^3 Gallons Throughput	
4-07-860-02	Methyl Chloride: Withdrawal Loss		10^3 Gallons Throughput	
4-07-860-03	Phosgene: Withdrawal Loss		10^3 Gallons Throughput	
4-07-860-04	Vinyl Chloride: Withdrawal Loss		10^3 Gallons Throughput	
4-07-860-99	Specify in Comments: Withdrawal Loss		10^3 Gallons Throughput	
Isocyanates				
4-07-864-01	Methyl Isocyanate: Withdrawal Loss		10^3 Gallons Throughput	
4-07-864-99	Specify Isocyanate: Withdrawal Loss		10^3 Gallons Throughput	

SCC	Process	VOC Lbs/Unit	Units	Notes
Mercaptans (Thiols)				
4-07-872-01	Methyl Mercaptan: Withdrawal Loss		10^3 Gallons Throughput	
4-07-872-99	Specify Mercaptan: Withdrawal Loss		10^3 Gallons Throughput	
ORGANIC CHEMICAL TRANSPORTATION - MAJOR GROUPS 28, 29, 30, 51				
Specify Liquid				
4-08-999-99	Loading Rack		10^3 Gallons Transferred	
ORGANIC SOLVENT EVAPORATION - MISCELLANEOUS				
Solvent Extraction Processes				
4-90-001-01	Petroleum Naphtha (Stoddard)	2000.0[d]	Tons Solvent Consumed	
4-90-001-02	MEK	2000.0[d]	Tons Solvent Consumed	
4-90-001-03	MIBK	2000.0[d]	Tons Solvent Consumed	
4-90-001-04	Furfural	2000.0[d]	Tons Solvent Consumed	
4-90-001-05	Trichloroethylene	2000.0[d]	Tons Solvent Consumed	
4-90-001-99	Other Not Classified (Specify in Comments)		Tons Solvent Consumed	
Waste Solvent Recovery Operations				
4-90-002-01	Storage Tank Vent	0.02	Tons Reclaimed Solvent	
4-90-002-02	Condenser Vent	3.3	Tons Reclaimed Solvent	
4-90-002-03	Incinerator Stack	0.02	Tons Reclaimed Solvent	
4-90-002-04	Solvent Spillage	0.2	Tons Reclaimed Solvent	
4-90-002-05	Solvent Loading	0.72	Tons Reclaimed Solvent	
4-90-002-06	Fugitive Leaks*		Lbs/Year	
4-90-002-99	Other Not Classified (Specify in Comments)		Tons Reclaimed Solvent	
Rail Car Cleaning - 4742, 4011, 4013				
4-90-003-01	Low Vapor Pressure, High Viscosity Group (Ethylene Glycol)	0.0007	Tank Cars Cleaned	
4-90-003-02	Medium Vapor Pressure, Medium Viscosity Cargo (Chlorobenzene)	0.035	Tank Cars Cleaned	
4-90-003-03	Low Vapor Pressure, Medium Viscosity Cargo (o-Dichlorobenzene)	0.166	Tank Cars Cleaned	
4-90-003-04	Low Vapor Pressure, High Viscosity Cargo (Creosote)	5.2	Tank Cars Cleaned	
4-90-003-99	Other Not Classified (Specify in Comments)		Tank Cars Cleaned	

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*Note that fugitive emissions are reported in units of pounds/year rather than lbs/ton product as in the NEDS Source Classification Codes and Emission Factor Listing dated October 1985.

SCC	Process	VOC Lbs/Unit	Units	Notes
Tank Truck Cleaning				
4-90-004-01	- High Vapor Pressure, Low Viscosity Cargo (Acetone)	0.69	Tank Trucks Cleaned	
4-90-004-02	- High Vapor Pressure, Low Viscosity Cargo (Perchloroethylene)	0.47	Tank Trucks Cleaned	
4-90-004-03	- Medium Vapor Pressure, Medium Viscosity Cargo (Methyl Methacrylate)	0.07	Tank Trucks Cleaned	
4-90-004-04	- Low Vapor Pressure, Low Viscosity Cargo (Phenol)	0.012	Tank Trucks Cleaned	
4-90-004-05	- Low Vapor Pressure, High Viscosity Cargo (Propylene Glycol)	0.002	Tank Trucks Cleaned	
4-90-004-99	- Other Not Classified (Specify in Comments)		Tank Trucks Cleaned	
Organic Solvent Evaporation - Fuel Fired Equipment				
Incinerators				
4-90-900-11	- Distillate Oil (No. 2)		10^3 Gallons Burned	
4-90-900-12	- Residual		10^3 Gallons Burned	
4-90-900-13	- Natural Gas		10^6 Cubic Feet Burned	
Flares				
4-90-900-21	- Distillate Oil (No. 2)		10^3 Gallons Burned	
4-90-900-22	- Residual		10^3 Gallons Burned	
4-90-900-23	- Natural Gas		10^6 Cubic Feet Burned	
Miscellaneous Volatile Organic Compound Evaporation				
4-90-999-98	- Identify the Process and the Solvent in Comments		Gallons Solvent Consumed	
4-90-999-99	- Identify the Process and the Solvent in Comments		Tons Solvent Consumed	
SOLID WASTE DISPOSAL - GOVERNMENT				
Municipal Incineration - 4953				
5-01-001-01	- Multiple Chamber	1.5	Tons Burned	
5-01-001-02	- Single Chamber	15.0	Tons Burned	
Open Burning Dump				
5-01-002-01	- General Refuse	30.0	Tons Burned	
5-01-002-02	- Vegetation Only	19.0	Tons Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Other Incineration				
5-01-005-05	Pathological		Tons Burned	
5-01-005-06	Sludge	1.0	Tons Dry Sludge	
5-01-005-07	Conical Design (Tee Pee) Municipal Refuse	20.0	Tons Burned	
5-01-005-08	Conical Design (Tee Pee) Wood Refuse	11.0	Tons Burned	
5-01-005-10	Trench Burner: Wood		Tons Burned	
5-01-005-11	Trench Burner: Tires		Tons Burned	
5-01-005-12	Trench Burner: Refuse		Tons Burned	
Firefighting				
5-01-006-01	Structure: Jet Fuel		10^3 Gallons Burned	
5-01-006-02	Structure: Distillate Oil		10^3 Gallons Burned	
5-01-006-03	Structure: Kerosene		10^3 Gallons Burned	
5-01-006-04	Structure: Wood Pallets		Tons Burned	
Sewage Treatment				
5-01-007-01	Entire Plant		10^6 Gallons Wastewater	
5-01-007-02	Primary Settling Tank		10^6 Gallons Wastewater	
5-01-007-03	Secondary Settling Tank		10^6 Gallons Wastewater	
5-01-007-04	Aeration Tank		10^6 Gallons Wastewater	
Auxillary Fuel/No Emissions				
5-01-900-05	Distillate Oil	0.0	10^3 Gallons Burned	
5-01-900-06	Natural Gas	0.0	10^6 Cubic Feet Burned	
5-01-900-10	Liquid Petroleum Gas (LPG)	0.0	10^3 Gallons Burned	
SOLID WASTE DISPOSAL - COMMERCIAL/INSTITUTIONAL				
Incineration - General				
5-02-001-01	Multiple Chamber	3.0	Tons Burned	
5-02-001-02	Single Chamber	15.0	Tons Burned	
5-02-001-03	Controlled Air	0.0	Tons Burned	
5-02-001-04	Conical Design: Municipal Refuse	20.0	Tons Burned	
5-02-001-05	Conical Design: Wood Refuse	11.0	Tons Burned	
Open Burning				
5-02-002-01	Wood	19.0	Tons Burned	
5-02-002-02	Refuse	30.0	Tons Burned	
Apartment Incineration				
5-02-003-01	Flue Fed	15.0	Tons Burned	
5-02-003-02	Flue Fed (With Afterburner and Draft Controls)	3.0		

SCC	Process	VOC Lbs/Unit	Units	Notes
Incineration (Special Purpose)				
5-02-005-05	- Pathological Waste		Tons Burned	
5-02-005-06	- Sludge	1.0	Tons Dry Sludge	
Landfill Dump				
5-02-006-01	- Waste Gas Flare		10^6 Cubic Feet Burned	
5-02-006-02	- Municipal: Fugitive Emissions		Acres of Landfill	
Auxillary Fuel/No Emissions				
5-02-900-05	- Distillate Oil	0.0	10^3 Gallons Burned	
5-02-900-06	- Natural Gas	0.0	10^6 Cubic Feet Burned	
5-02-900-10	- Liquified Petroleum Gas (LPG)	0.0	10^3 Gallons Burned	
SOLID WASTE DISPOSAL - INDUSTRIAL				
Incineration				
5-03-001-01	- Multiple Chamber	3.0	Tons Burned	
5-03-001-02	- Single Chamber	15.0	Tons Burned	
5-03-001-03	- Controlled Air	0.0	Tons Burned	
5-03-001-04	- Conical Design: Refuse	20.0	Tons Burned	
5-03-001-05	- Conical Design: Wood Refuse	11.0	Tons Burned	
5-03-001-06	- Trench Burner: Wood		Tons Burned	
5-03-001-07	- Trench Burner: Tires		Tons Burned	
5-03-001-08	- Auto Body Components	0.91	Tons Burned	
5-03-001-09	- Trench Burner: Refuse		Tons Burned	
Open Burning				
5-03-002-01	- Wood/Vegetation/Leaves	19.0	Tons Burned	
5-03-002-02	- Refuse	30.0	Tons Burned	
5-03-002-03	- Auto Body Components	32.0	Tons Burned	
5-03-002-04	- Coal Refuse Piles[d]	0.5	Cubic Yards of Pile	
Incineration				
5-03-005-06	- Sludge	1.0	Tons Dry Sludge	
Landfill Dump				
5-03-006-01	- Waste Gas Flare		10^6 Cubic Feet Burned	
5-03-006-02	- Liquid Waste Disposal		Tons Liquid Waste Burned	
5-03-006-03	- Hazardous: Fugitive Emissions		Acres of Landfill	
Liquid Waste				
5-03-007-01	- General		10^3 Gallons Waste Burned	

SCC	Process	VOC Lbs/Unit	Units	Notes
Treatment, Storage, and Disposal Facilities: Fugitive Emissions*				
5-03-008-01	Surface Impoundment	86.0	Lbs/Year	74
5-03-008-10	Waste Piles	340.0	Lbs/Year	75
5-03-008-20	Land Treatment	50.0	Lbs/Year	76
5-03-008-30	Containers			
Auxillary Fuel/No Emissions				
5-03-900-05	Distillate Oil	0.0	10^3 Gallons Burned	
5-03-900-06	Natural Gas	0.0	10^6 Cubic Feet Burned	
5-03-900-10	Liquified Petroleum Gas (LPG)	0.0	10^3 Gallons Burned	

*Note that fugitive emissions are reported in units of pounds/year rather than lbs/ton product as in the NEDS Source Classification Codes and Emission Factor Listing dated October 1985.

APPENDIX A

FOOTNOTES FOR VOC EMISSION FACTORS

1. Estimates taken from emission factors listed in Fugitive Emission Sources of Organic Compounds - Additional Information on Emissions, Emission Reductions, and Costs. U.S. Environmental Protection Agency. Research Triangle Park, N.C. EPA-450/3-82-010 (NTIS PB82-217126), April 1982. p. 2-70.

2. Equipment counts taken from Problem-Oriented Report: Frequency Occurrence for Fittings in Synthetic Organic Chemical Plant Process Units. (Prepared for U.S. Environmental Protection Agency.) Research Triangle Park, N.C. EPA-600/2-81-003 (NTIS PB81-141566), September 1980. Emission estimate for equipment leaks of VOC (fugitive emissions) are presented in this NAPAP listing as lbs/yr. To have an emissions estimate generated automatically (as in the NEDS inventory computer program), a production rate of unity should be used for the SCC's involving fugitive emissions from organic chemical process units. This procedure and alternate estimate techniques are presented in Appendix C of this document.

3. Based on one emission factor value from State files (State A).

4. From Background Information for Proposed New Source Performance Standards: Steam Generators, Incinerators, Portland Cement Plants, Nitric Acid Plants, Sulfuric Acid Plants. EPA Report APTD-0711 (NTIS PB 202459), U.S. Environmental Protection Agency. 1971. p. 37-42.

5. Values were extracted from Table 5 in Source Assessment: Plastics Processing, State of the Art. U.S. Environmental Protection Agency. EPA-600/2-78-004c (NTIS PB 280926), March 1978. All values were converted to the proper SCC units.

6. Values were extracted from tables in Polymer Manufacturing Industry - Background Information for Proposed Standards. Preliminary Draft. March 1983. p. 3.27-3.39. All values were converted to the proper SCC units.

7. This emission factor was estimated from the mean of 2 emission factor values from State files (State A).

8. Sodium Carbonate Industry - Background Information for Proposed Standards. Draft EIS. EPA-450/3-80-029a (NTIS PB80-219678), August 1980.

9. A Review of Standards of Performance for New Stationary Sources - Sulfuric Acid Plants. EPA-450/3-79-003 (NTIS PB 292278), January 1979. p. 3-1 to 3-5.

10. This emission factor was calculated from Tables in Polymer Manufacturing Industry - Background Information for Proposed Standards. Preliminary Draft. March 1983. p. 3.18. The emission rates for each process section were summed and this value was converted to the proper SCC units.

11. Ammonium Nitrate Manufacturing Industry - Technical Document. EPA-450/3-81-002 (NTIS PB81-152928), January 1981. Chapter 3. No VOC emissions are expected from ammonium nitrate manufacturing processes.

12. Estimated from the mean of 4 emission factor values from State files (State A).

13. Based on information from Docket No. A-83-29, (SOCMI Reactor Processes NSPS), Section II-D.

14. Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry. EPA-450/3-84-015 (NTIS PB85-164275), December 1984. This emission factor was calculated from Table C-1. The midpoint of the range was calculated and converted to the proper SCC units.

15. Urea Manufacturing Industry - Technical Document. EPA-450/3-81-001 (NTIS PB81-158925), January 1981. From Table 3-1.

16. Based on information from Docket No. A-81-22, (SOCMI Air Oxidation Processes NSPS), Section II-D.

17. Organic Chemical Manufacturing, Volume 9: Selected Processes. EPA-450/3-80-028d (NTIS PB81-220584), December 1980. Report 6. Table IV-1.

18. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 3. Table IV-2.

19. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 6. Table IV-1.

20. Calculated from Tables in Section 2 of Survey of Perchloroethylene Emission Sources. EPA-450/3-85-017. June 1985. Emission factors were estimated by taking the average of emissions factor values from 8 plants.

21. Calculated from Tables in Section 2 of Survey of Trichloroethylene Emission Sources. EPA-450/3-85-021 (NTIS PB86-107943), July 1985. Emission factors were estimated by taking the average of emission factor values from 2 plants.

22. Emission factor values were extracted from Tables in Survey Reports on Atmospheric Emissions from Petrochemical Industry - Volume 4. Vinyl Chloride Chapter. EPA-450/3-73-005d (NTIS PB 245630), April 1974. Emissions data were collected through Industry Questionnaires in the early 1970's by the Houdry Division, Air Products and Chemicals, Inc. These emission factors should only be used in the absence of more recent source specific emissions data.

23. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 4. Back calculated from Table V-1 to estimate uncontrolled emissions.

24. Emission factor values were extracted from Tables in Survey Reports on Atmospheric Emissions from the Petrochemical Industry - Volume 1. Acetic Anhydride Chapter. EPA-450/3-73-005a (NTIS PB 244957), April 1974. Emissions data were collected through Industry Questionnaires in the early 1970's by the Houdry Division, Air Products and Chemicals, Inc. These emission factors should only be used in the absence of more recent source specific emissions data.

25. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 8. Table IV-1.

26. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 7. Tables IV-1 and IV-2.

27. Organic Chemical Manufacturing, Volume 7: Selected Processes. EPA-450/3-80-028b (NTIS PB81-220568), December 1980. Report 3. Tables IV-1 and IV-3.

28. Organic Chemical Manufacturing, Volume 6: Selected Processes. EPA-450/3-80-028a (NTIS PB81-220550), December 1980. Report 1. Table IV-1.

29. Emission factor values were extracted from Tables in Survey Reports on Atmospheric Emissions from the Petrochemical Industry - Volume 2. Cyclohexanone Chapter. EPA-450/3-73-005b (NTIS PB 244958), April 1974. Emissions data were collected through Industry Questionnaires in the early 1970's by the Houdry Division, Air Products and Chemicals, Inc. These emission factors should only be used in the absence of more recent source specific emissions data.

30. Organic Chemical Manufacturing, Volume 6: Selected Processes. EPA-450/3-80-028a (NTIS PB81-220550), December 1980. Report 2. Tables IV-1 to IV-3.

31. Organic Chemical Manufacturing, Volume 9: Selected Processes. EPA-450/3-80-028d (NTIS PB81-220584), December 1980. Report 5. Table IV-1.

32. Locating and Estimating Air Emissions from Sources of Ethylene Oxide. Draft Final Report. Radian Corporation. October 1985. This emission factor was calculated from Tables 6 and 7. It is the mean of 2 values, and assumes that control methods of inspection and maintenance are in place.

33. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 3. Tables IV-1 and IV-2.

34. Emission factor values were extracted from Tables in Survey Reports on Atmospheric Emissions from the Petrochemical Industry - Volume 2. Glycerin Chapter. EPA-450/3-73-005b (NTIS PB 244958), April 1974. Emissions data were collected through Industry Questionnaires in the early 1970's by the Houdry Division, Air Products and Chemicals, Inc. These emission factors should only be used in the absence of more recent source specific emissions data.

35. Organic Chemical Manufacturing, Volume 7: Selected Processes. EPA-450/3-80-028b (NTIS PB81-220568), December 1980. Report 4. Table IV-1.

36. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 5. Table IV-2.

37. Organic Chemical Manufacturing, Volume 7: Selected Processes. EPA-450/3-80-028b (NTIS PB81-220568), December 1980. Report 1. Table IV-1.

38. Emission factor values were extracted from Tables in Survey Reports on Atmospheric Emissions from the Petrochemical Industry - Volume 2. Ethylene Chapter. EPA-450/3-73-005b (NTIS PB 244958), April 1974. Emissions data were collected through Industry Questionnaires in the early 1970's by the Houdry Division, Air Products and Chemicals, Inc. These emission factors should only be used in the absence of more recent source specific emissions data.

39. Emission factor values were extracted from Tables in Survey Reports on Atmospheric Emissions from the Petrochemical Industry - Volume 3. Phenol Chapter. EPA-450/3-73-005c (NTIS PB 245629), April 1974. Emissions data were collected through Industry Questionnaires in the early 1970's by the Houdry Division, Air Products and Chemicals, Inc. These emission factors should only be used in the absence of more recent source specific emissions data.

40. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 1. Tables IV-1 through IV-3.

41. Based on 2 emission factor values from State files (State A) and on 2 values taken from Docket No. A-83-29 (SOCMI Reactor Processes NSPS) Section II-D. The mean of these 4 values was used as this emission factor estimate.

42. Organic Chemical Manufacturing, Volume 6: Selected Processes. EPA-450/3-80-028a (NTIS PB81-220550), December 1980. Report 6. Table IV-1.

43. Organic Chemical Manufacturing, Volume 7: Selected Processes. EPA-450/3-80-028b (NTIS PB81-220568), December 1980. Report 7. Tables IV-2 and IV-4.

44. Organic Chemical Manufacturing, Volume 9: Selected Processes. EPA-450/3-80-028d (NTIS PB81-220584), December 1980. Report 2. Table IV-1.

45. Organic Chemical Manufacturing, Volume 9: Selected Processes. EPA-450/3-80-028d (NTIS PB81-220584), December 1980. Report 9. Tables IV-1 and IV-2.

46. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 2. Table IV-1.

47. Emission factor values were extracted from Tables in Survey Reports on Atmospheric Emissions from the Petrochemical Industry - Volume 1. Adiponitrile Chapter. EPA-450/3-73-005a (NTIS PB 244957), April 1974. Emissions data were collected through Industry Questionnaires in the early 1970's by the Houdry Division, Air Products and Chemicals, Inc. These emission factors should only be used in the absence of more recent source specific emissions data.

48. Organic Chemical Manufacturing, Volume 6: Selected Processes. EPA-450/3-80-028a (NTIS PB81-220550), December 1980. Report 3. Table IV-1.

49. Organic Chemical Manufacturing, Volume 8: Selected Processes. EPA-450/3-80-028c (NTIS PB81-220576), December 1980. Report 2. Table IV-1.

50. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Calculated from Table V-1 in Report 3. The midpoint of each range was chosen and converted to the proper units.

51. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 3. Tables IV-1 and IV-2.

52. Organic Chemical Manufacturing, Volume 10: Selected Processes. EPA-450/3-80-028e (NTIS PB81-220592), December 1980. Report 3. Table IV-2. Sum of 3 distillation system condenser vents.

53. This emission factor is based on emission factor values from State files (State A). Five values were in initial sample size. This source category includes all general storage and transfer processes within the chemical manufacturing group which are uncategorized otherwise. Processes therefore may be unrelated and emissions may not be comparable. Due to extreme variance, the high and low values were deleted and the mean of the remaining 3 values was used.

54. Fired Process Heaters. Eugene Barrington. Written materials for course at the Center for Professional Advancement. East Brunswick, N.J. February 1983. p. L-2. Primary references were not available; emissions of VOC should be considered negligible.

55. Emission factors for vegetable oil production have been calculated in units of lbs/ton of extractor feed cake processed rather than lbs/ton of refined oil produced. These units cannot be accurately converted to the SCC units due to variation in percent yield of oil from seeds from year to year and place to place. Emission data were taken from "Control of Volatile Organic Emission from Manufacture of Vegetable Oils." EPA-450/2-78-035 (NTIS PB 286307), June 1978. The emission factors calculated are as follows:

Corn Oil:	General (2046)	19 lbs VOC/Tons extractor feed cake
Cottonseed Oil:	General (2074)	18 lbs VOC/Tons extractor feed cake
Soybean Oil:	General (2075)	16 lbs VOC/Tons extractor feed cake
Peanut Oil:	General (2076)	21 lbs VOC/Tons extractor feed cake

56. See note 55. These emission factors were calculated from Table 2-2 and Figure 2-1 of "Control of volatile Organic Emissions from Manufacture of Vegetable Oils." EPA-450/2-78-035 (NTIS PB 286307). The factors for the four different seed types were averaged and this number was divided among the different processes as outlined in Figure 2-1 to estimate the following emission factors:

Oil Extraction:	17 lbs VOC/Tons extractor feed cake
Meal Preparation:	1.6 lbs VOC/Tons extractor feed cake
Oil Refining:	0.7 lbs VOC/Tons extractor feed cake

57. Organic Emissions from Ferrous Metallurgical Industries: Compilation of Emission Factors and Control Technologies. EPA-600/2-84-003 (NTIS PB84-141548), January 1984. Emission factors are expressed as total organic emissions which tends to overestimate VOC emissions. Tables 4-4 and 5-5.

58. Metals-oriented hot processes are considered to have negligible VOC emissions. Personal communication with Al Vervaert of EPA/OAQPS/ESED. January 1986.

59. Organic Emissions from Ferrous Metallurgical Industries: Compilation of Emission Factors and Control Technologies. EPA-600/2-84-003 (NTIS PB84-141548), January 1984. Emission factors are expressed as total organic emissions which tends to overestimate VOC emissions. Table 6-3.

60. Organic Emissions from Ferrous Metallurgical Industries: Compilation of Emission Factors and Control Technologies. EPA-600/2-84-003 (NTIS PB84-141548), January 1984. This emission factor is based on total organic emissions expressed as CH_4 therefore overestimating VOC emissions. Table 4-4.

61. Based on 24 emission factor values from State files (State A). This source category includes miscellaneous fabricated plastics products where different processes are employed. The associated emission factor estimates, therefore, may not be comparable. Due to extreme variance in the estimates, the high and low values were dropped and the mean of the remaining 22 values was used as an approximation for the different processes. This emission factor estimate should be used only in the absence of specific emissions data.

62. Based on 7 emission factor values from State files (State A).

63. Based on the mean of 3 emission factor values from State files (State A).

64. Locating and Estimating Air Emissions from Sources of Ethylene Oxide. Draft Final Report. Radian Corporation. October 1985. p. 53-55.

65. Based on the mean of 5 emission factor values from State files (State A). This source category includes a variety of adhesive coating application processes which may not be comparable. The values listed in the state files are highly variable and this emission factor estimate has been rounded to the nearest hundred. It is an approximation which should be used only in the absence of specific emissions data.

66. Based on the mean of 12 emission factor values from State files (State A). This source category includes a variety of adhesive coating application processes which may not be comparable. The values listed in the state files are highly variable and this emission factor estimate has been rounded to the nearest whole number. It is an approximation which should be used only in the absence of specific emissions data.

67. Based on 9 emission factor values from State files (State A). This source category includes all general coating oven operations. Processes may vary widely between different plants. The lowest value was dropped as an outlier and the mean of the remaining 8 values was used. Data are highly variable and this emission factor is an approximation which should be used only in the absence of specific emissions data.

68. Based on the mean of 13 emission factor values from State files (State A).

69. Based on 14 emission factor values from State files (State A). This source category includes fugitive emissions from various surface coating operations where processes may not be comparable. Due to extreme variability, the high and low values were dropped and the mean of the remaining 12 values was used as an emission factor estimate.

70. Based on emission factor values from State files (State A). The mean of 208 values was used. This source category includes miscellaneous emissions from various surface coating operations and as such the emission factor is an approximation for many different processes which may not be comparable. The factor presented should be used only in the absence of specific emissions data.

71. Based on 9 emission factor values from State files (State A). This source category includes storage of various petroleum liquids. The emission factor is an approximation which should be used only in the absence of specific emissions data.

72. Based on the mean of 6 emission factor values from State files (State A). This source category includes storage of various petroleum liquids. The emission factor is an approximation which should be used only in the absence of specific emissions data.

73. Calculated using equations from Section 4.3 of AP-42 dated September 1985. The same assumptions were used as those from Table 4.3-4 on page 4.3-15 of the AP-42 Third Edition, dated April 1977. Values smaller than 10^{-4} were considered negligible and entered into the Table as 0.0.

74. Fugitive emissions from transfer operations, based on model plant (scenario 4) that includes a combination of treatment tanks, impoundments, and filters and a flow rate of 200,000 GPD. Preliminary draft of Background Information Document, Hazardous Waste Treatment, Storage, and Disposal Facilities. Chapters 1-6. (Surface Impoundments and Wastewater Treatment Systems). Prepared for U.S. Environmental Protection Agency. Research Triangle Park, NC February 6, 1986 p. 3-28

75. Based on fugitive emissions for large landfills processing 5 percent high-volatile waste. Preliminary draft of Background Information Document, Hazardous Waste Treatment, Storage, and Disposal Facilities. Chapters 1-6 (Landfills and wastepiles). Prepared for the U.S. Environmental Protection Agency. Research Triangle Park, NC February 6, 1986 p. 3-12

76. Average based on fugitive emissions from 4 model plants with medium volatility oily waste (scenarios 1, 2, 3, and 4). Preliminary draft of Background Information Document, Hazardous Waste Treatment, Storage, and Disposal Facilities. Chapters 1-6. (Land Treatment). Prepared for the U.S. Environmental Protection Agency. Research Triangle Park, NC February 6, 1986. pp. 3-8, 3-9, 3-10 and 3-22.

77. An average based on 4 values obtained from responses to Section 114 letters for the methylene chloride NESHAP.

78. An average based on 3 values obtained from repsonses to Section 114 letters for the methylene chloride NESHAP.

79. Based on a single value obtained from a response to a Section 114 letter for the methylene chloride NESHAP.

80. Based on a single value obtained from a response to a Section 114 letter for the methylene chloride NESHAP.

81. An average based on 2 values obtained from responses to Section 114 letters for the methylene chloride NESHAP.

82. An average based on 5 values obtained from responses to Section 114 letters for the methylene chloride NESHAP.

83. Based on a single value on information from Docket No. A-80-25, (SOCMI Distillation Operations NSPS) Section II-D.

84. Average of 3 values obtained from total hydrocarbon emissions testing of a cupola furnace (Site MET-A). Draft Final Test Report, National Dioxin Study. Tier 4: Combustion Sources. Prepared for U.S. Environmental Protection Agency. Research Triangle Park, NC. January 10, 1986 pp. 5-6, 5-13, and 5-15.

85. Based on the mean of 3 values obtained from NEDS User Point File Data Selection Report. March 27, 1986.

86. Reference 85, based on the mean of three values.

87. Reference 85, based on the mean of 12 values.

88. Reference 85, based on the mean of 15 values.

89. Reference 85, based on the average of two values.

90. Reference 85, based on the mean of 13 values.

91. Reference 85, based on one value.

92. Reference 85, based on one value.

93. Reference 85, based on one value.

94. Reference 85, based on the mean of six values.

95. Reference 85, based on one value.

96. Reference 85, based on the mean of eight values.

97. Reference 85, based on one value.

98. VOC Emissions from Petroleum Refinery Wastewater Systems. EPA-450/3-85-001a. February 1985. P. 3-53. The emission factor presented is for an uncovered dissolved air floatation (DAF) unit and represents the worst case for additional treatment. If an induced air floatation (IAF) unit is used, an emission factor of 0.01 lb/10^3 gallons wastewater should be used.

99. Reference 98, p. 3-57. The emission factor presented is for an uncovered dissolved air floatation (DAF) unit and represents the worst case for additional treatment. If an induced air floatation (IAF) unit is used, an emission factor of 0.20 lb/10^3 BBLs refinery feed should be used.

100. An average based on 6 values, calculated from Table 3-3, Survey of Carbon Tetrachloride Emission Sources (NESHAP). EPA-450/3-85-018 (NTIS PB85-221661). The value is based on total fugitive emissions of CCl_4 via the hydrocarbon chlorinolysis process. A value of 23,800 lbs/year is obtained based upon a mean of 6 values via the hydrochlorination/direct chlorination process.

101. An average based on eleven values calculated from Table 2-6. Memo from Kuhn, K. Q. and R. A. Wassel to Butadiene Source Category Concurrence File, Estimates of 1, 3- Butadiene Emissions From Production Facilities with Additional Controls. March 25, 1986.

APPENDIX B

FOOTNOTES FROM ORIGINAL NEDS DOCUMENTS

[a] Both boiler capacities and throughputs must be reported to NEDS for all boilers.

[b] This emission factor is an approximation. Particulate emissions from residual oil combustion can be more accurately estimated from the equation lb/1000 gallon = 10S + 3. See AP-42, page 1.3-2.

[c] The emission factor(s) are non-standard. The factor(s) are derived from AP-42 data for another similar source category.

[d] The emission factor(s) are not from AP-42. The factor(s) are from other EPA documents, State data, or other miscellaneous sources.

[e] This emission factor is an approximation. Particulate emissions from waste oil combustion can be more accurately estimated by the factor 75A, where A = weight (%) percent of ash in the waste oil. See AP-42, page 1.11-1.

[f] Fugitive emissions occur from numerous locations within industrial facilities, as of 1978, most of these sources have not been fully characterized. To allow these fugitive sources to be represented in NEDS, common SCC codes have been developed. These codes should be used in addition to the main process SCC codes associated with the facility. Specific fugitive emissions that have been characterized are also contained in this table.

[g] These emission factors are from an earlier edition of AP-42. This is an obsolete process. The last channel black plant in the U.S. closed in 1976.

[h] These emission factors are from an earlier edition of AP-42. This is an obsolete process. The gas furnace process is being phased out in the U.S.

[i] Manufacture of inorganic pigments is classified under SCC 3-01-035-**.

[j] For molded and fabricated rubber and plastics products, see SCC 3-08-***-***, 3-30-002-**, and 4-02-002-**.

[k] This emission factor is an assumed average value from a range of values given in AP-42, Table 5.17-2.

[l] Also applies to the sulfur recovery plant at petroleum refineries and natural gas production fields.

[m] See 3-01-301-** for other chlorobenzene process codes.

[n] Grain processing and milling are included in SCC's 3-02-007-** thru 3-02-008-**. For grain elevators, see SCC 3-02-005-**, 3-02-006-**, and 3-02-031-**.

[o] Units refer to amount of grain processed through each operation. If only the total amount of grain received or shipped is known, see AP-42, Table 6.4-2 for typical ratios of tons processed to tons shipped or received.

[p] The particulate emission factor is on emissions at the inlet to the baghouse or other control device. Indicate the control device and efficiency to properly estimate the actual emissions.

[q] Codes 3-03-003-09, -10, and -11 represent individual operations within this SCC (3-03-003-07).

[r] These emission factors are from an earlier edition of AP-42. The current version of AP-42, Fourth Edition, no longer reports emission factor(s) for this process.

[s] This emission factor is a weighted average of values given in AP-42, Table 7.3-2.

[t] Represents total CO generated, report control equipment as 022 for CO boiler or 060 for process gas recovery to properly account for actual emissions.

[u] Represents total CO generated, report control equipment as 022 for CO boiler or 023 for flaring to properly account for actual emissions.

[v] These emission factors are derived from AP-42 data. A units adjustment has been made to the AP-42 data. See AP-42, Table 7.6-1.

[w] Apply for all metallic minerals except as noted. Low moisture ore is defined as having less than 4 percent moisture content by weight for ore entering the primary crusher. High moisture ore has over 4 percent by weight.

[x] Emission factor does not apply to bauxite ore.

[y] Emission factor does not apply to drying of titanium/zirconium sands. See SCC 3-03-012-** for titanium processing.

[z] Calculated from emission factors given in Table 7.9-2, Footnotes b-e.

[aa] This emission factor is an approximation. To more accurately estimate SO_2 emissions, use the factor 1.25S, where S = weight (%) percent of sulfur in the coke. See AP-42, Table 7.10-1.

[bb] This emission factor is an approximation. To more accurately estimate SO_2 emissions, use the factor .292 S, where S = weight (%) percent of sulfur in the fuel. See AP-42, Table 8.1-1.

[cc] This emission factor is from an earlier edition of AP-42. Currently, AP-42, Fourth Edition calculates an emission factor in a different manner. See AP-42, Section 11.2.3.

[dd] Use kiln code and appropriate 3-90 code for fuel used in kilns to properly account for all SO_x emissions.

[ee] These SCC codes are also applicable to Coal Cleaning Operations at power plants.

[ff] This emission factor is from an earlier version of AP-42. See AP-42, Table 8.14-1.

[gg] Expressed as emission rate at point of release. For uncontrolled sources, to account for emissions that settle out within the plant, code a fictitious control device code for particulate of 006 (low efficiency gravitational collector) with appropriate control efficiency. See AP-42, Section 8.2.0 for table of typical control efficiencies for gravitational settling.

[hh] Several processes that routinely occur in Major Group 29 can be found under other major groups. Specifically, note the following:

- waste of process gas and/or liquid fired boilers - SCC 1-02-***-**.
- internal combustion compressor engines - SCC 2-02-***-**.
- amine sweeting process - SCC 3-10-002-**.
- sulfur recovery process - SCC 3-01-032-**.
- sulfuric acid plant - SCC 3-01-022-** or 3-01-023-**.

[ii] Represents total CO and VOC generated. Report control device as 022 if CO boiler is present to properly account for actual emissions.

[jj] Units expressed as the equivalent number of valves, seals, flanges, or drains in the refinery on an annual operating basis (8,760 hours/year). For example, if there are 1,000 seals, all operating 8,760 hours/year, then operating rate = 1,000. However, if the average operating time is 6,570 hours/year (3/4 of the total hours in a year), then operating rate = 1,000 x (6,570, 8,760) = 750 seals. All counts of valves, seals, flanges, and drains should be similarly adjusted to account for the average annual hours of operation in the refinery.

[kk] Process changes may include such measures as raising the pH of the cooking liquor, thereby lowering the free SO$_2$, relieving the pressure in the digester before the contents are discharged, and pumping out the digester contents instead of blowing them out.

[ll] The emission factor is non-standard. The factor is derived from AP-42 by a units conversion. See AP-42, Section 10.4.

[mm] For Surface Coating Operations, see SCC 4-02-019-** and 4-02-021-**.

[nn] For tire retreading operations, see SCC 3-08-005-**.

[oo] The sulfur content of the fuel as H_2S on a mole percent basis.

[pp] For specific printing SCCs, see SCC 4-05-***-**.

[qq] In-process fuel codes must always be used in conjunction with the appropriate process code.

[rr] This emission factor is non-standard. The factor is derived from AP-42 and Bureau of Mines data. See AP-42, Section 8.6.

[ss] A table of typical solvent densities can be found in Section 3, Chapter 16 of AEROS Volume V.

[tt] These solvents are estimated to be of negligible photochemical reactivity.

[uu] Use these SCCs to provide a rough estimate of emissions only when information on the identity and/or quantity of make-up solvent used is not available.

[vv] These are general SCCs applicable to all industrial categories.

[ww] This emission factor is non-standard. The factor is derived from average coating density data in AP-42, Section 4.2.2.

[xx] These solvents are used to thin coatings and thus should be used with one of the coating codes.

[yy] This SCC should only be used to provide rough estimates of emissions for cases when information on amount of fabric processed is not available.

[zz] For surface coating of small appliances, see SCC 4-02-025-**, surface coating of miscellaneous metal parts.

[aaa] Includes Major Group 34 fabricated metal products, Major Group 35 small appliances, and other coating operations Major Group 33-39 not specified elsewhere.

[bbb] The VOC emission factors are non-standard. The emission factors are derived from information found in AP-42, Section 4.3.

[ccc] Bulk terminals are defined as facilities with daily throughputs of 20,000 gallons or more.

[ddd] Bulk plants are defined as facilities with daily throughputs of 20,000 gallons or less.

[eee] These solvents are often added by the user to the inks used in printing processes. Thus, the solvent SCC's should not be used alone, but rather in conjunction with a printing process SCC.

[fff] These organic chemicals are designated in this listing by their trade names. The following list indicates the trade name and its corresponding chemical name:

Trade Name	Chemical Name
Butyl Carbitol	Diethylene Glycol Monobutyl Ether
Butyl Cellosolve	Ethylene Glycol Monobutyl Ether
Carbitol	Diethylene Glycol Monoethyl Ether
Methyl Carbitol	Diethylene Glycol Monomethyl Ether
Methyl Cellosolve	Ethylene Glycol Monoethyl Ether

APPENDIX C

FUGITIVE EMISSIONS OF VOC FROM CHEMICAL UNITS

Fugitive emissions, or equipment leaks, of VOC represent a major portion of the total VOC emitted to the atmosphere from organic chemical manufacturing process units. Numerous studies have been conducted to quantify the emissions and the effect of various control techniques on emissions. An important finding of these studies is that emissions from equipment leaks are related to process complexity, as described by equipment counts. This differentiates fugitive emissions from process-related emissions which generally vary with production volume.

Through its standards development activities, EPA conducted much research in developing emission factors for the different equipment types comprising fugitive emission sources. The factors generated during these studies form the basis of the emissions estimation procedures discussed below.

Emission Factors in NAPAP Listing

In the NAPAP listing presented in this document, fugitive emission factors are presented for a limited number of organic chemical process units. The emission values are given in units of lbs/year and thus need to be handled in a special manner to yield an emissions estimate. If employing one of these listed factors, the data need to be coded with NEDS emission estimation method code 3 (emissions to be calculated by a computerized method) with a production rate of unity. This procedure enables the NEDS computer inventory program to generate the correct annual emission estimate automatically.

Emission factor estimates for fugitive emissions appear in this NAPAP listing for fourteen process units: vinyl acetate, ethylene, cumene, acetone/phenol, ethylene dichloride, vinyl chloride (monomer), formaldehyde, methyl ethyl ketone, acetaldehyde, methylmethacrylate, adipic acid, trichloroethylene/perchloroethylene, 1,1,1-trichloroethane, and acrylonitrile. The estimates are based on average equipment counts for the associated process units included in the 24-unit study of SOCMI process units (EPA-600/2-81-003). These average equipment counts were combined with the average emission factors for individual equipment components published in the Additional Information Document (AID) (EPA-450/3-82-010) to yield an estimate of annual emissions (assuming 8,760 hours of operation).

These emission estimates are average values based upon limited equipment count data. They represent an approximation only and should, therefore, be used with some caution. More accurate estimates of fugitive emissions can be generated using the following procedures.

Estimates Using the AID

The AID contains background information on the development of the emission factors for equipment leaks in chemical process units. In Appendix B of that document, the procedure for estimating total fugitive emissions from a process unit is presented. That procedure, which uses specific equipment counts for each equipment type and service, can also be used to provide a more accurate estimate of fugitive emissions for any given process unit.

As illustrated in Table C-1, the estimation technique is founded in the specific equipment counts for the process unit of interest. As shown for this example, the number of sources are grouped by equipment type (pump seal, valve, etc.) and service (gas, light liquid, heavy liquid). The individual component emission factors are provided in the table in terms of lb/hr/source. These are the SOCMI average emission factors that are applicable to the industry overall, in the absence of unit-specific emission factors (see below). The annual emissions estimate for each equipment type and service is merely the product of the number of components and the individual component emission factor, applied over the number of hours of operation annually. In the example in Table C-1, one operating year was taken to be 8,760 hours. The total of fugitive emissions is then estimated as the sum of the estimates by equipment type and service.

This approach yields an estimate of fugitive emissions that is more specific to the process unit of interest. Emissions can be even more closely estimated provided certain additional data are gathered for the specific process unit. These data require that a rigorous Method 21 survey be conducted in the process unit to determine the number of sources leaking and

TABLE C-1. EXAMPLE OF EMISSIONS ESTIMATE USING THE AID APPROACH

Emissions Source	Number of Sources	Emission Factor lb/hr/source	Annual Emissions lbs/yr[a]
Pump seals			
Light Liquid	29	0.1087	27,600
Heavy Liquid	30	0.0471	12,800
Valves			
Gas	402	0.0123	43,400
Light Liquid	524	0.0154	70,700
Heavy Liquid	524	0.00051	2,300
Safety/relief valves			
Gas	11	0.229	22,000
Open-ended lines	410	0.0037	13,400
Compressors	2	0.502	8,800
Sampling connections	26	0.0330	7,500
Flanges	2400	0.0018	38,400
TOTAL			246,900

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[a] For estimating purposes, one operating year was assumed to be 8,760 hours.

the number not leaking according to a given leak definition. This final procedure, which is an extension of the AID procedure described above, is detailed in a report on estimating emissions from equipment leaks of VOC and hazardous air pollutants (HAP's) published in 1986 by EPA.